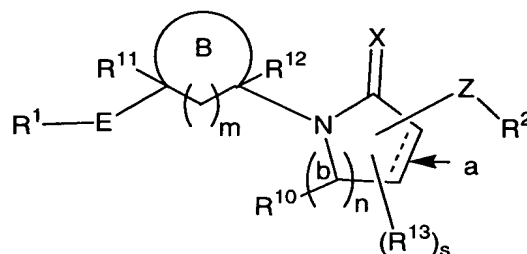


Claims:

1. A compound of formula (I):



(I)

or a stereoisomer or a pharmaceutically acceptable salt thereof, wherein:

- 10 ring B is a cycloalkyl group of 3 to 8 carbon atoms wherein the cycloalkyl group is saturated or partially unsaturated; or a heterocycle of 3 to 7 atoms wherein the heterocycle is saturated or partially unsaturated, the heterocycle containing a heteroatom selected from -O-, -S-, -S(=O)-, -S(=O)₂-, and -N(R⁴)-, the heterocycle optionally containing a -C(O)-; ring B being substituted with 0-2 R⁵;

- 20 X is selected from O or S;

Z is selected from a bond, -NR⁸C(O)-, -NR⁸C(S)-, -NR⁸C(O)NH-, -NR⁸C(S)NH-, -NR⁸SO₂-, -NR⁸SO₂NH-, -C(O)NR⁸-, -OC(O)NR⁸-, -NR⁸C(O)O-, -(CR¹⁵R¹⁵)₁-, -CR¹⁴=CR¹⁴-, -CR¹⁵R¹⁵C(O)-, -C(O)CR¹⁵R¹⁵-, CR¹⁵R¹⁵C(=N-OR¹⁶)-, -O-CR¹⁴R¹⁴-, -CR¹⁴R¹⁴-O-, -O-, -NR⁹-, -NR⁹-CR¹⁴R¹⁴-, -CR¹⁴R¹⁴-NR⁹-, -S(O)_p-, -S(O)_p-CR¹⁴R¹⁴-, -CR¹⁴R¹⁴-S(O)_p-, and -S(O)_p-NR⁹-;

- 30 wherein neither Z nor R¹³ are connected to a carbon atom labeled (b);

bond (a) is a single or double bond;

alternatively, when n is equal to 2, two atoms labeled
5 (b) may join through a double bond;

E is selected from $-S(O)_pCHRe-$, $-CHReNRe-$, $-C(O)-NRe-$,
 $-NReC(O)NRe-$, $-SO_2-NRe-$, and $-NReSO_2NRe-$;

10 Re is independently selected from H and C_{1-3} alkyl;

R^1 is selected from a C_{6-10} aryl group substituted with
0-5 R^6 and a 5-10 membered heteroaryl system
containing 1-4 heteroatoms selected from N, O, and
15 S, substituted with 0-3 R^6 ;

R^2 is selected from a C_{6-10} aryl group substituted with
0-5 R^7 and a 5-10 membered heteroaryl system
containing 1-4 heteroatoms selected from N, O, and
20 S, substituted with 0-3 R^7 ;

R^4 is selected from H, C_{1-6} alkyl, C_{3-8} alkenyl, C_{3-8}
alkynyl, $(CRR)_tOH$, $(CRR)_tSH$, $(CRR)_tOR^{4d}$, $(CHR)_tSR^{4d}$,
 $(CRR)_tNR^{4a}R^{4a}$, $(CRR)_qC(O)OH$, $(CRR)_rC(O)R^{4b}$,
25 $(CRR)_rC(O)NR^{4a}R^{4a}$, $(CRR)_tOC(O)NR^{4a}R^{4a}$,
 $(CRR)_tNR^{4a}C(O)OR^{4d}$, $(CRR)_tNR^{4a}C(O)R^{4b}$, $(CRR)_rC(O)OR^{4d}$,
 $(CRR)_tOC(O)R^{4b}$, $(CRR)_rS(O)_pR^{4b}$, $(CRR)_rS(O)_2NR^{4a}R^{4a}$,
 $(CRR)_tNR^{4a}S(O)_2R^{4b}$, C_{1-6} haloalkyl, a $(CRR)_r-C_{3-10}$
carbocyclic residue substituted with 0-3 R^{4e} , and a
30 $(CHR)_r-4-10$ membered heterocyclic system containing
1-4 heteroatoms selected from N, O, and S,
substituted with 0-2 R^{4e} ;

- R^{4a} , at each occurrence, is independently selected from H, methyl substituted with 0-1 R^{4c} , C_{2-6} alkyl substituted with 0-3 R^{4e} , C_{3-8} alkenyl substituted with 0-3 R^{4e} , C_{3-8} alkynyl substituted with 0-3 R^{4e} ,
 5 a $(CH_2)_r$ - C_{3-10} carbocyclic residue substituted with 0-4 R^{4e} , and a $(CHR)_r$ -4-10 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-2 R^{4e} ;
- 10 R^{4b} , at each occurrence, is selected from H, C_{1-6} alkyl substituted with 0-3 R^{4e} , C_{3-8} alkenyl substituted with 0-3 R^{4e} , C_{3-8} alkynyl substituted with 0-3 R^{4e} , a $(CH_2)_r$ - C_{3-6} carbocyclic residue substituted with 0-2 R^{4e} , and a $(CHR)_r$ -4-10 membered heterocyclic
 15 system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-2 R^{4e} ;
- R^{4c} is independently selected from $-C(O)R^{4b}$, $-C(O)OR^{4d}$, $-C(O)NR^{4f}R^{4f}$, and $(CH_2)_r$ phenyl;
- 20 R^{4d} , at each occurrence, is selected from methyl, CF_3 , C_{2-6} alkyl substituted with 0-3 R^{4e} , C_{3-8} alkenyl substituted with 0-3 R^{4e} , C_{3-8} alkynyl substituted with 0-3 R^{4e} , and a C_{3-10} carbocyclic residue
 25 substituted with 0-3 R^{4e} ;
- R^{4e} , at each occurrence, is selected from C_{1-6} alkyl, C_{2-8} alkenyl, C_{2-8} alkynyl, $(CH_2)_r$ C_{3-6} cycloalkyl, Cl, F, Br, I, CN, NO_2 , $(CF_2)_r$ CF_3 , $(CH_2)_r$ OC_{1-5} alkyl, OH, SH,
 30 $(CH_2)_r$ SC_{1-5} alkyl, $(CH_2)_r$ $NR^{4f}R^{4f}$, $-C(O)R^{4i}$, $-C(O)OR^{4j}$, $-C(O)NR^{4h}R^{4h}$, $-OC(O)NR^{4h}R^{4h}$, $-NR^{4h}C(O)NR^{4h}R^{4h}$, $-NR^{4h}C(O)OR^{4j}$, and $(CH_2)_r$ phenyl;

R^{4f}, at each occurrence, is selected from H, C₁₋₆ alkyl, C₃₋₆ cycloalkyl, and phenyl;

5 R^{4h}, at each occurrence, is independently selected from H, C₁₋₆ alkyl, C₃₋₈ alkenyl, C₃₋₈ alkynyl, and a (CH₂)_r-C₃₋₁₀ carbocyclic;

10 R⁴ⁱ, at each occurrence, is selected from H, C₁₋₆ alkyl, C₃₋₈ alkenyl, C₃₋₈ alkynyl, and a (CH₂)_r-C₃₋₆ carbocyclic residue;

15 R^{4j}, at each occurrence, is selected from CF₃, C₁₋₆ alkyl, C₃₋₈ alkenyl, C₃₋₈ alkynyl, and a C₃₋₁₀ carbocyclic residue;

20 R⁵, at each occurrence, is independently selected from H, =O, C₁₋₆ alkyl, C₂₋₈ alkenyl, C₂₋₈ alkynyl, (CRR)_rOH, (CRR)_rSH, (CRR)_rOR^{5d}, (CRR)_rSR^{5d}, (CRR)_rNR^{5a}R^{5a}, (CRR)_rN(→O)R^{5a}R^{5a}, N₃, (CRR)_rC(O)OH, (CRR)_rC(O)R^{5b}, (CRR)_rC(O)NR^{5a}R^{5a}, (CRR)_rNR^{5a}C(O)R^{5b}, (CRR)_rOC(O)NR^{5a}R^{5a}, (CRR)_rNR^{5a}C(O)OR^{5d}, (CRR)_rNR^{5a}C(O)NR^{5a}R^{5a}, (CRR)_rNR^{5a}C(O)H, (CRR)_rC(O)OR^{5d}, (CRR)_rOC(O)R^{5b}, (CRR)_rS(O)_pR^{5b}, (CRR)_rS(O)₂NR^{5a}R^{5a}, (CRR)_rNR^{5a}S(O)₂R^{5b}, 25 (CRR)_rNR^{5a}S(O)₂NR^{5a}R^{5a}, C₁₋₆ haloalkyl, a (CRR)_r-C₃₋₁₀ carbocyclic residue substituted with 0-3 R^{5c}, and a (CRR)_r-5-10 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-2 R^{5c};

30 R^{5a}, at each occurrence, is independently selected from H, methyl substituted with 0-1 R^{5g}, C₂₋₆ alkyl substituted with 0-2 R^{5e}, C₃₋₈ alkenyl substituted with 0-2 R^{5e}, C₃₋₈ alkynyl substituted with 0-2 R^{5e},

a $(\text{CH}_2)_r\text{-C}_{3-10}$ carbocyclic residue substituted with 0-5 R^{5e} , and a $(\text{CH}_2)_r\text{-5-10}$ membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3 R^{5e} ;

5

R^{5b} , at each occurrence, is selected from C_{1-6} alkyl substituted with 0-3 R^{5e} , C_{3-8} alkenyl substituted with 0-2 R^{5e} , C_{3-8} alkynyl substituted with 0-2 R^{5e} , a $(\text{CH}_2)_r\text{-C}_{3-6}$ carbocyclic residue substituted with 0-2 R^{5e} , and a $(\text{CH}_2)_r\text{-5-6}$ membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3 R^{5e} ;

10

R^{5c} , at each occurrence, is selected from C_{1-6} alkyl, C_{2-8} alkenyl, C_{2-8} alkynyl, $(\text{CH}_2)_r\text{C}_{3-6}$ cycloalkyl, Cl, Br, I, F, $(\text{CF}_2)_r\text{CF}_3$, NO_2 , CN, $(\text{CH}_2)_r\text{NR}^{5f}\text{R}^{5f}$, $(\text{CH}_2)_r\text{OH}$, $(\text{CH}_2)_r\text{OC}_{1-4}$ alkyl, $(\text{CH}_2)_r\text{SC}_{1-4}$ alkyl, $(\text{CH}_2)_r\text{C}(\text{O})\text{OH}$, $(\text{CH}_2)_r\text{C}(\text{O})\text{R}^{5b}$, $(\text{CH}_2)_r\text{C}(\text{O})\text{NR}^{5f}\text{R}^{5f}$, $(\text{CH}_2)_r\text{OC}(\text{O})\text{NR}^{5f}\text{R}^{5f}$, $(\text{CH}_2)_r\text{NR}^{5f}\text{C}(\text{O})\text{R}^{5b}$, $(\text{CH}_2)_r\text{C}(\text{O})\text{OC}_{1-4}$ alkyl, $(\text{CH}_2)_r\text{NR}^{5f}\text{C}(\text{O})\text{OC}_{1-4}$ alkyl, $(\text{CH}_2)_r\text{OC}(\text{O})\text{R}^{5b}$, $(\text{CH}_2)_r\text{C}(=\text{NR}^{5f})\text{NR}^{5f}\text{R}^{5f}$, $(\text{CH}_2)_r\text{S}(\text{O})_p\text{R}^{5b}$, $(\text{CH}_2)_r\text{NHC}(=\text{NR}^{5f})\text{NR}^{5f}\text{R}^{5f}$, $(\text{CH}_2)_r\text{S}(\text{O})_2\text{NR}^{5f}\text{R}^{5f}$, $(\text{CH}_2)_r\text{NR}^{5f}\text{S}(\text{O})_2\text{R}^{5b}$, and $(\text{CH}_2)_r\text{phenyl}$ substituted with 0-3 R^{5e} ;

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R^{5d} , at each occurrence, is selected from methyl, CF_3 , C_{2-6} alkyl substituted with 0-2 R^{5e} , C_{3-8} alkenyl substituted with 0-2 R^{5e} , C_{3-8} alkynyl substituted with 0-2 R^{5e} , and a C_{3-10} carbocyclic residue substituted with 0-3 R^{5e} ;

30

R^{5e} , at each occurrence, is selected from C_{1-6} alkyl, C_{2-8} alkenyl, C_{2-8} alkynyl, C_{3-6} cycloalkyl, Cl, F, Br, I,

CN, NO₂, (CF₂)_rCF₃, (CH₂)_rOC₁₋₅ alkyl, OH, SH,
(CH₂)_rSC₁₋₅ alkyl, (CH₂)_rNR^{5f}R^{5f}, and (CH₂)_rphenyl;

5 R^{5f}, at each occurrence, is selected from H, C₁₋₆ alkyl,
and C₃₋₆ cycloalkyl;

R^{5g} is independently selected from -C(O)R^{5b}, -C(O)OR^{5d},
-C(O)NR^{5f}R^{5f}, -CN, and (CH₂)_rphenyl;

10 R, at each occurrence, is selected from H, C₁₋₆ alkyl
substituted with R^{5e}, C₂₋₈ alkenyl, C₂₋₈ alkynyl,
(CH₂)_rC₃₋₆ cycloalkyl, and (CH₂)_rphenyl substituted
with R^{5e};

15 R⁶, at each occurrence, is selected from C₁₋₈ alkyl, C₂₋₈
alkenyl, C₂₋₈ alkynyl, (CH₂)_rC₃₋₆ cycloalkyl, Cl, Br,
I, F, NO₂, CN, (CR'R')_rNR^{6a}R^{6a}, (CR'R')_rOH,
(CR'R')_rO(CR'R')_rR^{6d}, (CR'R')_rSH, (CR'R')_rC(O)H,
(CR'R')_rS(CR'R')_rR^{6d}, (CR'R')_rSC(O)(CR'R')_rR^{6b},
20 (CR'R')_rC(O)OH, (CR'R')_rC(O)(CR'R')_rR^{6b},
(CR'R')_rNR^{6a}R^{6a}, (CR'R')_rC(O)NR^{6a}R^{6a},
(CR'R')_rNR^{6f}C(O)(CR'R')_rR^{6b}, (CR'R')_rC(O)O(CR'R')_rR^{6d},
(CR'R')_rOC(O)(CR'R')_rR^{6b},
(CR'R')_rOC(O)NR^{6a}(CR'R')_rR^{6d},
25 (CR'R')_rNR^{6a}C(O)NR^{6a}(CR'R')_rR^{6d},
(CR'R')_rNR^{6a}C(S)NR^{6a}(CR'R')_rR^{6d},
(CR'R')_rNR^{6f}C(O)O(CR'R')_rR^{6b}, (CR'R')_rC(=NR^{6f})NR^{6a}R^{6a},
(CR'R')_rNHC(=NR^{6f})NR^{6f}R^{6f}, (CR'R')_rS(O)_p(CR'R')_rR^{6b},
(CR'R')_rS(O)₂NR^{6a}R^{6a}, (CR'R')_rNR^{6f}S(O)₂NR^{6a}R^{6a},
30 (CR'R')_rNR^{6f}S(O)₂(CR'R')_rR^{6b}, C₁₋₆ haloalkyl, C₂₋₈
alkenyl substituted with 0-3 R', C₂₋₈ alkynyl
substituted with 0-3 R', (CR'R')_rphenyl substituted
with 0-3 R^{6e}, and a (CH₂)_{r-5-6} membered heterocyclic

system containing 1-2 heteroatoms selected from N, O, and S, substituted with 0-2 R^{6e};

alternatively, two R⁶ on adjacent atoms on R¹ may join to
5 form a cyclic acetal;

R^{6a}, at each occurrence, is selected from H, methyl substituted with 0-1 R^{6g}, C₂₋₆ alkyl substituted with 0-2 R^{6e}, C₃₋₈ alkenyl substituted with 0-2 R^{6e}, C₃₋₈
10 alkynyl substituted with 0-2 R^{6e}, a (CH₂)_r-C₃₋₁₀ carbocyclic residue substituted with 0-5 R^{6e}, and a (CH₂)_r-5-10 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-2 R^{6e};

15 R^{6b}, at each occurrence, is selected from H, C₁₋₆ alkyl substituted with 0-2 R^{6e}, C₃₋₈ alkenyl substituted with 0-2 R^{6e}, C₃₋₈ alkynyl substituted with 0-2 R^{6e}, a (CH₂)_r-C₃₋₆ carbocyclic residue substituted with 0-3
20 R^{6e}, and a (CH₂)_r-5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-2 R^{6e};

R^{6d}, at each occurrence, is selected from C₃₋₈ alkenyl substituted with 0-2 R^{6e}, C₃₋₈ alkynyl substituted with 0-2 R^{6e}, methyl, CF₃, C₂₋₆ alkyl substituted with 0-3 R^{6e}, C₂₋₄ haloalkyl, a (CH₂)_r-C₃₋₁₀
25 carbocyclic residue substituted with 0-3 R^{6e}, and a (CH₂)_r-5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S,
30 substituted with 0-3 R^{6e};

R^{6e}, at each occurrence, is selected from C₁₋₆ alkyl, C₂₋₈ alkenyl, C₂₋₈ alkynyl, (CH₂)_r-C₃₋₆ cycloalkyl, Cl, F,

Br, I, CN, NO₂, (CF₂)_rCF₃, (CH₂)_rOC₁₋₅ alkyl, OH, SH,
(CH₂)_rSC₁₋₅ alkyl, (CH₂)_rNR^{6f}R^{6f}, and (CH₂)_rphenyl;

5 R^{6f}, at each occurrence, is selected from H, C₁₋₅ alkyl,
and C₃₋₆ cycloalkyl, and phenyl;

R^{6g} is independently selected from -C(O)R^{6b}, -C(O)OR^{6d},
-C(O)NR^{6f}R^{6f}, and (CH₂)_rphenyl;

10 R⁷, at each occurrence, is selected from C₁₋₈ alkyl, C₂₋₈
alkenyl, C₂₋₈ alkynyl, (CH₂)_rC₃₋₆ cycloalkyl, Cl, Br,
I, F, NO₂, CN, (CR'R')_rNR^{7a}R^{7a}, (CR'R')_rOH,
(CR'R')_rO(CR'R')_rR^{7d}, (CR'R')_rSH, (CR'R')_rC(O)H,
(CR'R')_rS(CR'R')_rR^{7d}, (CR'R')_rC(O)OH,
15 (CR'R')_rC(O)(CR'R')_rR^{7b}, (CR'R')_rC(O)NR^{7a}R^{7a},
(CR'R')_rNR^{7f}C(O)(CR'R')_rR^{7b}, (CR'R')_rC(O)O(CR'R')_rR^{7d},
(CR'R')_rOC(O)(CR'R')_rR^{7b},
(CR'R')_rOC(O)NR^{7a}(CR'R')_rR^{7a},
(CR'R')_rNR^{7a}C(O)NR^{7a}(CR'R')_rR^{7a},
20 (CR'R')_rNR^{7f}C(O)O(CR'R')_rR^{7d}, (CR'R')_rC(=NR^{7f})NR^{7a}R^{7a},
(CR'R')_rNHC(=NR^{7f})NR^{7f}R^{7f}, (CR'R')_rS(O)_p(CR'R')_rR^{7b},
(CR'R')_rS(O)₂NR^{7a}R^{7a}, (CR'R')_rNR^{7a}S(O)₂NR^{7a}R^{7a},
(CR'R')_rNR^{7f}S(O)₂(CR'R')_rR^{7b}, C₁₋₆ haloalkyl, C₂₋₈
alkenyl substituted with 0-3 R', C₂₋₈ alkynyl
25 substituted with 0-3 R', (CR'R')_r C₃₋₁₀ carbocyclic
residue and (CR'R')_rphenyl substituted with 0-3 R^{7e};

alternatively, two R⁷ on adjacent atoms on R² may join to
form a cyclic acetal;

30

R^{7a}, at each occurrence, is independently selected from H,
methyl substituted with 0-1 R^{7g}, C₂₋₆ alkyl
substituted with 0-2 R^{7e}, C₃₋₈ alkenyl substituted

with 0-2 R^{7e}, C₃₋₈ alkynyl substituted with 0-2 R^{7e},
 a (CH₂)_r-C₃₋₁₀ carbocyclic residue substituted with
 0-5 R^{7e}, and a (CH₂)_r-5-10 membered heterocyclic
 system containing 1-4 heteroatoms selected from N,
 5 O, and S, substituted with 0-2 R^{7e};

R^{7b}, at each occurrence, is selected from C₁₋₆ alkyl
 substituted with 0-2 R^{7e}, C₃₋₈ alkenyl substituted
 with 0-2 R^{7e}, C₃₋₈ alkynyl substituted with 0-2 R^{7e},
 10 a (CH₂)_r-C₃₋₆ carbocyclic residue substituted with 0-3
 R^{7e}, and a (CH₂)_r-5-6 membered heterocyclic system
 containing 1-4 heteroatoms selected from N, O, and
 S, substituted with 0-2 R^{7e};

15 R^{7d}, at each occurrence, is selected from C₃₋₈ alkenyl
 substituted with 0-2 R^{7e}, C₃₋₈ alkynyl substituted
 with 0-2 R^{7e}, methyl, CF₃, C₂₋₄ haloalkyl, C₂₋₆ alkyl
 substituted with 0-3 R^{7e}, a (CH₂)_r-C₃₋₁₀ carbocyclic
 residue substituted with 0-3 R^{7e}, and a (CH₂)_r-5-6
 20 membered heterocyclic system containing 1-4
 heteroatoms selected from N, O, and S, substituted
 with 0-3 R^{7e};

R^{7e}, at each occurrence, is selected from C₁₋₆ alkyl, C₂₋₈
 25 alkenyl, C₂₋₈ alkynyl, (CH₂)_r-C₃₋₆ cycloalkyl, Cl, F,
 Br, I, CN, NO₂, (CF₂)_rCF₃, (CH₂)_rOC₁₋₅ alkyl, OH, SH,
 C(O)OC₁₋₅ alkyl, (CH₂)_rSC₁₋₅ alkyl, (CH₂)_rNR^{7f}R^{7f}, and
 (CH₂)_rphenyl;

30 R^{7f}, at each occurrence, is selected from H, C₁₋₅ alkyl,
 and C₃₋₆ cycloalkyl, and phenyl;

R^{7g} is independently selected from -C(O)R^{7b}, -C(O)OR^{7d},
 -C(O)NR^{7f}R^{7f}, and (CH₂)_rphenyl;

R', at each occurrence, is selected from H, C₁₋₆ alkyl substituted with R^{6e}, C₂₋₈ alkenyl, C₂₋₈ alkynyl, (CH₂)_rC₃₋₆ cycloalkyl, and (CH₂)_rphenyl substituted with R^{6e};

R⁸ is selected from H, C₁₋₄ alkyl, and C₃₋₄ cycloalkyl;

R⁹ is selected from H, C₁₋₄ alkyl, C₃₋₄ cycloalkyl, -C(O)H, and -C(O)-C₁₋₄alkyl;

R¹⁰ is independently selected from H, and C₁₋₄alkyl substituted with 0-1 R^{10b}, alternatively, two R¹⁰ form =O;

R^{10b}, at each occurrence, is independently selected from -OH, -SH, -NR^{10c}R^{10c}, -C(O)NR^{10c}R^{10c}, and -NHC(O)R^{10c};

R^{10c} is selected from H, C₁₋₄ alkyl and C₃₋₆ cycloalkyl;

R¹¹ is selected from H, C₁₋₄ alkyl, (CHR)_qOH, (CHR)_qSH, (CHR)_qOR^{11d}, (CHR)_qS(O)_pR^{11d}, (CHR)_rC(O)R^{11b}, (CHR)_rNR^{11a}R^{11a}, (CHR)_rC(O)NR^{11a}R^{11a}, (CHR)_rC(O)NR^{11a}OR^{11d}, (CHR)_qNR^{11a}C(O)R^{11b}, (CHR)_qNR^{11a}C(O)OR^{11d}, (CHR)_qOC(O)NR^{11a}R^{11a}, (CHR)_rC(O)OR^{11d}, a (CHR)_r-C₃₋₆ carbocyclic residue substituted with 0-5 R^{11e}, and a (CHR)_r-5-10 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3 R^{11e};

R^{11a}, at each occurrence, is independently selected from H, C₁₋₄ alkyl, C₃₋₄ alkenyl, C₃₋₄ alkynyl, (CH₂)_rC₃₋₆ cycloalkyl, a (CH₂)_r-C₃₋₆ carbocyclic residue

substituted with 0-5 R^{11e}, and a (CH₂)_r-5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3 R^{11e};

5 R^{11b}, at each occurrence, is independently selected from C₁₋₄ alkyl, C₂₋₄ alkenyl, C₂₋₄ alkynyl, a (CH₂)_r-C₃₋₆ carbocyclic residue substituted with 0-2 R^{11e}, and a (CH₂)_r-5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S,
 10 substituted with 0-3 R^{11e};

R^{11d}, at each occurrence, is independently selected from H, methyl, -CF₃, C₂₋₄ alkyl, C₃₋₆ alkenyl, C₃₋₆ alkynyl, a C₃₋₆ carbocyclic residue substituted with
 15 0-3 R^{11e}, and a (CH₂)_r-5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3 R^{11e};

R^{11e}, at each occurrence, is selected from C₁₋₆ alkyl, C₂₋₈ alkenyl, C₂₋₈ alkynyl, C₃₋₆ cycloalkyl, Cl, F, Br, I, CN, NO₂, (CF₂)_rCF₃, (CH₂)_rOC₁₋₅ alkyl, OH, -O-C₁₋₆ alkyl, SH, (CH₂)_rSC₁₋₅ alkyl, (CH₂)_rNR^{11f}R^{11f}, and (CH₂)_rphenyl;

25 R^{11f}, at each occurrence, is selected from H, C₁₋₆ alkyl, and C₃₋₆ cycloalkyl;

R¹² is selected from H, C₁₋₄ alkyl, (CHR)_qOH, (CHR)_qSH, (CHR)_qOR^{12d}, (CHR)_qS(O)_pR^{12d}, (CHR)_rC(O)R^{12b},
 30 (CHR)_rNR^{12a}R^{12a}, (CHR)_rC(O)NR^{12a}R^{12a}, (CHR)_rC(O)NR^{12a}OR^{12d}, (CHR)_qNR^{12a}C(O)R^{12b},

(CHR)_qNR^{12a}C(O)OR^{12d}, (CHR)_qOC(O)NR^{12a}R^{12a},
 (CHR)_rC(O)OR^{12d}, a (CHR)_r-C₃₋₆ carbocyclic residue
 substituted with 0-5 R^{12e}, and a (CHR)_r-5-10 membered
 heterocyclic system containing 1-4 heteroatoms
 5 selected from N, O, and S, substituted with 0-3 R^{12e};

R^{12a}, at each occurrence, is independently selected from
 H, C₁₋₄ alkyl, C₃₋₄ alkenyl, C₃₋₄ alkynyl, (CH₂)_rC₃₋₆
 cycloalkyl, a (CH₂)_r-C₃₋₆ carbocyclic residue
 10 substituted with 0-5 R^{12e}, and a (CH₂)_r-5-6 membered
 heterocyclic system containing 1-4 heteroatoms
 selected from N, O, and S, substituted with 0-3 R^{12e};

R^{12b}, at each occurrence, is independently selected from
 15 C₁₋₄ alkyl, C₂₋₄ alkenyl, C₂₋₄ alkynyl, a (CH₂)_r-C₃₋₆
 carbocyclic residue substituted with 0-2 R^{12e}, and a
 (CH₂)_r-5-6 membered heterocyclic system containing
 1-4 heteroatoms selected from N, O, and S,
 substituted with 0-3 R^{12e};

20 R^{12d}, at each occurrence, is independently selected from
 H, methyl, -CF₃, C₂₋₄ alkyl, C₃₋₆ alkenyl, C₃₋₆
 alkynyl, a C₃₋₆ carbocyclic residue substituted with
 0-3 R^{12e}, and a (CH₂)_r-5-6 membered heterocyclic
 25 system containing 1-4 heteroatoms selected from N,
 O, and S, substituted with 0-3 R^{12e};

R^{12e}, at each occurrence, is selected from C₁₋₆ alkyl, C₂₋₈
 alkenyl, C₂₋₈ alkynyl, C₃₋₆ cycloalkyl, Cl, F, Br, I,
 30 CN, NO₂, (CF₂)_rCF₃, (CH₂)_rOC₁₋₅ alkyl, OH, -O-C₁₋₆

alkyl, SH, $(\text{CH}_2)_r\text{SC}_{1-5}$ alkyl, $(\text{CH}_2)_r\text{NR}^{12f}\text{R}^{12f}$, and
 $(\text{CH}_2)_r\text{phenyl}$;

R^{12f} , at each occurrence, is selected from H, C_{1-6} alkyl,
 5 and C_{3-6} cycloalkyl;

R^{13} , at each occurrence, is independently selected from H,
 and C_{1-4} alkyl substituted with 0-1 R^{13b} , -OH, $-\text{NH}_2$,
 F, Cl, Br, I, $-\text{OR}^{13a}$, $-\text{N}(\text{R}^{13a})_2$, and C_{1-4} alkyl
 10 substituted with 0-3 R^{13b} ;

R^{13a} is selected from H, C_{1-4} alkyl and C_{3-6} cycloalkyl;

R^{13b} , at each occurrence, is independently selected from
 15 -OH, -SH, $-\text{NR}^{13c}\text{R}^{13c}$, $-\text{C}(\text{O})\text{NR}^{13c}\text{R}^{13c}$, and $-\text{NHC}(\text{O})\text{R}^{13c}$;

R^{13c} is selected from H, C_{1-4} alkyl and C_{3-6} cycloalkyl;

R^{14} , at each occurrence, is independently selected from H
 20 and C_{1-4} alkyl;

alternatively, two R^{14} s, along with the carbon atom to
 which they are attached, join to form a C_{3-6}
 carbocyclic ring;

25 R^{15} , at each occurrence, is independently selected from H,
 C_{1-4} alkyl, OH, NH_2 , $-\text{O}-\text{C}_{1-4}$ alkyl, $\text{NR}^{15a}\text{R}^{15a}$,
 $\text{C}(\text{O})\text{NR}^{15a}\text{R}^{15a}$, $\text{NR}^{15a}\text{C}(\text{O})\text{R}^{15b}$, $\text{NR}^{15a}\text{C}(\text{O})\text{OR}^{15d}$,
 $\text{OC}(\text{O})\text{NR}^{15a}\text{R}^{15a}$, and $(\text{CHR})_r\text{C}(\text{O})\text{OR}^{15d}$;

30

alternatively, two R¹⁵s, along with the carbon atom or atoms to which they are attached, join to form a C₃₋₆ carbocyclic ring;

5 R^{15a}, at each occurrence, is independently selected from H, and C₁₋₄ alkyl;

R^{15b}, at each occurrence, is independently selected from C₁₋₄ alkyl, C₃₋₆ alkenyl, and C₃₋₆ alkynyl;

10

R^{15d}, at each occurrence, is independently selected from C₁₋₄ alkyl, C₃₋₆ alkenyl, and C₃₋₆ alkynyl;

R¹⁶ is selected from C₁₋₄ alkyl;

15

l is selected from 1, 2 and 3;

n is selected from 0, 1, 2, and 3;

20 m is selected from 0 and 1;

p, at each occurrence, is independently selected from 0, 1, and 2;

25 q, at each occurrence, is independently selected from 1, 2, 3, and 4;

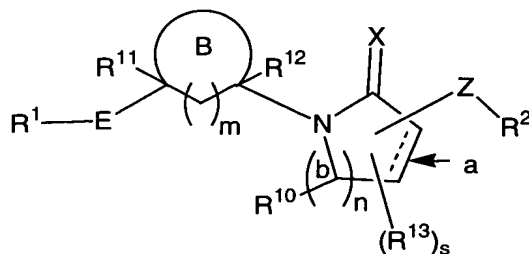
r, at each occurrence, is independently selected from 0, 1, 2, 3, and 4;

30

t, at each occurrence, is independently selected from 2, 3, and 4;

s is selected from 0 and 1.

2. A compound of claim 1, wherein the compound is of formula (I):



(I)

or a stereoisomer or a pharmaceutically acceptable salt thereof, wherein:

10 ring B is a cycloalkyl group of 3 to 8 carbon atoms
wherein the cycloalkyl group is saturated or
partially unsaturated; or a heterocycle of 3 to 7
atoms wherein the heterocycle is saturated or
partially unsaturated, the heterocycle containing a
15 heteroatom selected from -O-, -S-, -S(=O)-,
-S(=O)₂-, and -N(R⁴)-, the heterocycle optionally
containing a -C(O)-; ring B being substituted with
0-2 R⁵;

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20  X is selected from 0 or S;
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Z is selected from a bond, $-\text{NR}^8\text{C}(\text{O})-$, $-\text{NR}^8\text{C}(\text{S})-$,
 $-\text{NR}^8\text{C}(\text{O})\text{NH}-$, $-\text{NR}^8\text{C}(\text{S})\text{NH}-$, $-\text{NR}^8\text{SO}_2-$, $-\text{NR}^8\text{SO}_2\text{NH}-$,
 $-\text{C}(\text{O})\text{NR}^8-$, $-\text{OC}(\text{O})\text{NR}^8-$, $-\text{NR}^8\text{C}(\text{O})\text{O}-$, $-(\text{CR}^{15}\text{R}^{15})_1-$,
25 $-\text{CR}^{14}=\text{CR}^{14}-$, $-\text{CR}^{15}\text{R}^{15}\text{C}(\text{O})-$, $-\text{C}(\text{O})\text{CR}^{15}\text{R}^{15}-$,
 $\text{CR}^{15}\text{R}^{15}\text{C}(=\text{N}-\text{OR}^{16})-$, $-\text{O}-\text{CR}^{14}\text{R}^{14}-$, $-\text{CR}^{14}\text{R}^{14}-\text{O}-$, $-\text{O}-$,
 $-\text{NR}^9-$, $-\text{NR}^9-\text{CR}^{14}\text{R}^{14}-$, $-\text{CR}^{14}\text{R}^{14}-\text{NR}^9-$, $-\text{S}(\text{O})_{\text{p}}-$, $-\text{S}(\text{O})_{\text{p}}-$
 $\text{CR}^{14}\text{R}^{14}-$, $-\text{CR}^{14}\text{R}^{14}-\text{S}(\text{O})_{\text{p}}-$, and $-\text{S}(\text{O})_{\text{p}}-\text{NR}^9-$;

30 wherein neither Z nor R¹³ are connected to a carbon atom
labeled (b);

bond (a) is a single or double bond;

alternatively, when n is equal to 2, two atoms labeled
5 (b) may join through a double bond;

E is selected from $-S(O)_pCHRe-$, $-CHReNRe-$, $-C(O)-NRe-$,
 $-NReC(O)NRe-$, $-SO_2-NRe-$, and $-NReSO_2NRe-$;

10 Re is independently selected from H and C_{1-3} alkyl;

R^1 is selected from a C_{6-10} aryl group substituted with
0-5 R^6 and a 5-10 membered heteroaryl system
containing 1-4 heteroatoms selected from N, O, and
15 S, substituted with 0-3 R^6 ;

R^2 is selected from a C_{6-10} aryl group substituted with
0-5 R^7 and a 5-10 membered heteroaryl system
containing 1-4 heteroatoms selected from N, O, and
20 S, substituted with 0-3 R^7 ;

R^4 is selected from H, C_{1-6} alkyl, C_{3-8} alkenyl, C_{3-8}
alkynyl, $(CRR)_tOH$, $(CRR)_tSH$, $(CRR)_tOR^{4d}$, $(CHR)_tSR^{4d}$,
 $(CRR)_tNR^{4a}R^{4a}$, $(CRR)_qC(O)OH$, $(CRR)_rC(O)R^{4b}$,
25 $(CRR)_rC(O)NR^{4a}R^{4a}$, $(CRR)_tOC(O)NR^{4a}R^{4a}$,
 $(CRR)_tNR^{4a}C(O)OR^{4d}$, $(CRR)_tNR^{4a}C(O)R^{4b}$, $(CRR)_rC(O)OR^{4d}$,
 $(CRR)_tOC(O)R^{4b}$, $(CRR)_rS(O)_pR^{4b}$, $(CRR)_rS(O)_2NR^{4a}R^{4a}$,
 $(CRR)_tNR^{4a}S(O)_2R^{4b}$, C_{1-6} haloalkyl, a $(CRR)_r-C_{3-10}$
carbocyclic residue substituted with 0-3 R^{4e} , and a
30 $(CHR)_r-4-10$ membered heterocyclic system containing
1-4 heteroatoms selected from N, O, and S,
substituted with 0-2 R^{4e} ;

R^{4a} , at each occurrence, is independently selected from H,
 methyl substituted with 0-1 R^{4c} , C_{2-6} alkyl
 substituted with 0-3 R^{4e} , C_{3-8} alkenyl substituted
 with 0-3 R^{4e} , C_{3-8} alkynyl substituted with 0-3 R^{4e} ,
 5 a $(CH_2)_r$ - C_{3-10} carbocyclic residue substituted with
 0-4 R^{4e} , and a $(CHR)_r$ -4-10 membered heterocyclic
 system containing 1-4 heteroatoms selected from N,
 O, and S, substituted with 0-2 R^{4e} ;

10 R^{4b} , at each occurrence, is selected from H, C_{1-6} alkyl
 substituted with 0-3 R^{4e} , C_{3-8} alkenyl substituted
 with 0-3 R^{4e} , C_{3-8} alkynyl substituted with 0-3 R^{4e} ,
 a $(CH_2)_r$ - C_{3-6} carbocyclic residue substituted with
 0-2 R^{4e} , and a $(CHR)_r$ -4-10 membered heterocyclic
 15 system containing 1-4 heteroatoms selected from N,
 O, and S, substituted with 0-2 R^{4e} ;

R^{4c} is independently selected from $-C(O)R^{4b}$, $-C(O)OR^{4d}$,
 $-C(O)NR^{4f}R^{4f}$, and $(CH_2)_r$ phenyl;

20 R^{4d} , at each occurrence, is selected from methyl, CF_3 ,
 C_{2-6} alkyl substituted with 0-3 R^{4e} , C_{3-8} alkenyl
 substituted with 0-3 R^{4e} , C_{3-8} alkynyl substituted
 with 0-3 R^{4e} , and a C_{3-10} carbocyclic residue
 25 substituted with 0-3 R^{4e} ;

R^{4e} , at each occurrence, is selected from C_{1-6} alkyl, C_{2-8}
 alkenyl, C_{2-8} alkynyl, $(CH_2)_r$ C_{3-6} cycloalkyl, Cl, F,
 Br, I, CN, NO_2 , $(CF_2)_r$ CF_3 , $(CH_2)_r$ OC_{1-5} alkyl, OH, SH,
 30 $(CH_2)_r$ SC_{1-5} alkyl, $(CH_2)_r$ $NR^{4f}R^{4f}$, $-C(O)R^{4i}$, $-C(O)OR^{4j}$,
 $-C(O)NR^{4h}R^{4h}$, $-OC(O)NR^{4h}R^{4h}$, $-NR^{4h}C(O)NR^{4h}R^{4h}$,
 $-NR^{4h}C(O)OR^{4j}$, and $(CH_2)_r$ phenyl;

- R^{4f} , at each occurrence, is selected from H, C_{1-6} alkyl, C_{3-6} cycloalkyl, and phenyl;
- R^{4h} , at each occurrence, is independently selected from H, C_{1-6} alkyl, C_{3-8} alkenyl, C_{3-8} alkynyl, and a $(CH_2)_r-C_{3-10}$ carbocyclic;
- R^{4i} , at each occurrence, is selected from H, C_{1-6} alkyl, C_{3-8} alkenyl, C_{3-8} alkynyl, and a $(CH_2)_r-C_{3-6}$ carbocyclic residue;
- R^{4j} , at each occurrence, is selected from CF_3 , C_{1-6} alkyl, C_{3-8} alkenyl, C_{3-8} alkynyl, and a C_{3-10} carbocyclic residue;
- R^5 , at each occurrence, is independently selected from H, $=O$, C_{1-6} alkyl, C_{2-8} alkenyl, C_{2-8} alkynyl, $(CRR)_rOH$, $(CRR)_rSH$, $(CRR)_rOR^{5d}$, $(CRR)_rSR^{5d}$, $(CRR)_rNR^{5a}R^{5a}$, $(CRR)_rC(O)OH$, $(CRR)_rC(O)R^{5b}$, $(CRR)_rC(O)NR^{5a}R^{5a}$, $(CRR)_rNR^{5a}C(O)R^{5b}$, $(CRR)_rOC(O)NR^{5a}R^{5a}$, $(CRR)_rNR^{5a}C(O)OR^{5d}$, $(CRR)_rNR^{5a}C(O)NR^{5a}R^{5a}$, $(CRR)_rNR^{5a}C(O)H$, $(CRR)_rC(O)OR^{5d}$, $(CRR)_rOC(O)R^{5b}$, $(CRR)_rS(O)_pR^{5b}$, $(CRR)_rS(O)_2NR^{5a}R^{5a}$, $(CRR)_rNR^{5a}S(O)_2R^{5b}$, $(CRR)_rNR^{5a}S(O)_2NR^{5a}R^{5a}$, C_{1-6} haloalkyl, a $(CRR)_r-C_{3-10}$ carbocyclic residue substituted with 0-3 R^{5c} , and a $(CRR)_r-5-10$ membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-2 R^{5c} ;
- R^{5a} , at each occurrence, is independently selected from H, methyl substituted with 0-1 R^{5g} , C_{2-6} alkyl substituted with 0-2 R^{5e} , C_{3-8} alkenyl substituted with 0-2 R^{5e} , C_{3-8} alkynyl substituted with 0-2 R^{5e} , a $(CH_2)_r-C_{3-10}$ carbocyclic residue substituted with

0-5 R^{5e}, and a (CH₂)_r-5-10 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3 R^{5e};

5 R^{5b}, at each occurrence, is selected from C₁₋₆ alkyl substituted with 0-3 R^{5e}, C₃₋₈ alkenyl substituted with 0-2 R^{5e}, C₃₋₈ alkynyl substituted with 0-2 R^{5e}, a (CH₂)_r-C₃₋₆ carbocyclic residue substituted with 0-2 R^{5e}, and a (CH₂)_r-5-6 membered heterocyclic
10 system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3 R^{5e};

R^{5c}, at each occurrence, is selected from C₁₋₆ alkyl, C₂₋₈ alkenyl, C₂₋₈ alkynyl, (CH₂)_rC₃₋₆ cycloalkyl, Cl, Br,
15 I, F, (CF₂)_rCF₃, NO₂, CN, (CH₂)_rNR^{5f}R^{5f}, (CH₂)_rOH, (CH₂)_rOC₁₋₄ alkyl, (CH₂)_rSC₁₋₄ alkyl, (CH₂)_rC(O)OH, (CH₂)_rC(O)R^{5b}, (CH₂)_rC(O)NR^{5f}R^{5f}, (CH₂)_rOC(O)NR^{5f}R^{5f}, (CH₂)_rNR^{5f}C(O)R^{5b}, (CH₂)_rC(O)OC₁₋₄ alkyl, (CH₂)_rNR^{5f}C(O)OC₁₋₄ alkyl, (CH₂)_rOC(O)R^{5b},
20 (CH₂)_rC(=NR^{5f})NR^{5f}R^{5f}, (CH₂)_rS(O)_pR^{5b}, (CH₂)_rNHC(=NR^{5f})NR^{5f}R^{5f}, (CH₂)_rS(O)₂NR^{5f}R^{5f}, (CH₂)_rNR^{5f}S(O)₂R^{5b}, and (CH₂)_rphenyl substituted with 0-3 R^{5e};

25 R^{5d}, at each occurrence, is selected from methyl, CF₃, C₂₋₆ alkyl substituted with 0-2 R^{5e}, C₃₋₈ alkenyl substituted with 0-2 R^{5e}, C₃₋₈ alkynyl substituted with 0-2 R^{5e}, and a C₃₋₁₀ carbocyclic residue substituted with 0-3 R^{5e};

30 R^{5e}, at each occurrence, is selected from C₁₋₆ alkyl, C₂₋₈ alkenyl, C₂₋₈ alkynyl, C₃₋₆ cycloalkyl, Cl, F, Br, I,

CN, NO₂, (CF₂)_rCF₃, (CH₂)_rOC₁₋₅ alkyl, OH, SH,
(CH₂)_rSC₁₋₅ alkyl, (CH₂)_rNR^{5f}R^{5f}, and (CH₂)_rphenyl;

5 R^{5f}, at each occurrence, is selected from H, C₁₋₆ alkyl,
and C₃₋₆ cycloalkyl;

R^{5g} is independently selected from -C(O)R^{5b}, -C(O)OR^{5d},
-C(O)NR^{5f}R^{5f}, and (CH₂)_rphenyl;

10 R, at each occurrence, is selected from H, C₁₋₆ alkyl
substituted with R^{5e}, C₂₋₈ alkenyl, C₂₋₈ alkynyl,
(CH₂)_rC₃₋₆ cycloalkyl, and (CH₂)_rphenyl substituted
with R^{5e};

15 R⁶, at each occurrence, is selected from C₁₋₈ alkyl, C₂₋₈
alkenyl, C₂₋₈ alkynyl, (CH₂)_rC₃₋₆ cycloalkyl, Cl, Br,
I, F, NO₂, CN, (CR'R')_rNR^{6a}R^{6a}, (CR'R')_rOH,
(CR'R')_rO(CR'R')_rR^{6d}, (CR'R')_rSH, (CR'R')_rC(O)H,
(CR'R')_rS(CR'R')_rR^{6d}, (CR'R')_rSC(O)(CR'R')_rR^{6b},
20 (CR'R')_rC(O)OH, (CR'R')_rC(O)(CR'R')_rR^{6b},
(CR'R')_rNR^{6a}R^{6a}, (CR'R')_rC(O)NR^{6a}R^{6a},
(CR'R')_rNR^{6f}C(O)(CR'R')_rR^{6b}, (CR'R')_rC(O)O(CR'R')_rR^{6d},
(CR'R')_rOC(O)(CR'R')_rR^{6b},
(CR'R')_rOC(O)NR^{6a}(CR'R')_rR^{6d},
25 (CR'R')_rNR^{6a}C(O)NR^{6a}(CR'R')_rR^{6d},
(CR'R')_rNR^{6a}C(S)NR^{6a}(CR'R')_rR^{6d},
(CR'R')_rNR^{6f}C(O)O(CR'R')_rR^{6b}, (CR'R')_rC(=NR^{6f})NR^{6a}R^{6a},
(CR'R')_rNHC(=NR^{6f})NR^{6f}R^{6f}, (CR'R')_rS(O)_p(CR'R')_rR^{6b},
(CR'R')_rS(O)₂NR^{6a}R^{6a}, (CR'R')_rNR^{6f}S(O)₂NR^{6a}R^{6a},
30 (CR'R')_rNR^{6f}S(O)₂(CR'R')_rR^{6b}, C₁₋₆ haloalkyl, C₂₋₈
alkenyl substituted with 0-3 R', C₂₋₈ alkynyl
substituted with 0-3 R', (CR'R')_rphenyl substituted
with 0-3 R^{6e}, and a (CH₂)_{r-5-6} membered heterocyclic

system containing 1-2 heteroatoms selected from N, O, and S, substituted with 0-2 R^{6e};

alternatively, two R⁶ on adjacent atoms on R¹ may join to
5 form a cyclic acetal;

R^{6a}, at each occurrence, is selected from H, methyl substituted with 0-1 R^{6g}, C₂₋₆ alkyl substituted with 0-2 R^{6e}, C₃₋₈ alkenyl substituted with 0-2 R^{6e}, C₃₋₈
10 alkynyl substituted with 0-2 R^{6e}, a (CH₂)_r-C₃₋₁₀ carbocyclic residue substituted with 0-5 R^{6e}, and a (CH₂)_r-5-10 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-2 R^{6e};

15 R^{6b}, at each occurrence, is selected from H, C₁₋₆ alkyl substituted with 0-2 R^{6e}, C₃₋₈ alkenyl substituted with 0-2 R^{6e}, C₃₋₈ alkynyl substituted with 0-2 R^{6e}, a (CH₂)_r-C₃₋₆ carbocyclic residue substituted with 0-3
20 R^{6e}, and a (CH₂)_r-5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-2 R^{6e};

R^{6d}, at each occurrence, is selected from C₃₋₈ alkenyl substituted with 0-2 R^{6e}, C₃₋₈ alkynyl substituted with 0-2 R^{6e}, methyl, CF₃, C₂₋₆ alkyl substituted with 0-3 R^{6e}, C₂₋₄ haloalkyl, a (CH₂)_r-C₃₋₁₀
25 carbocyclic residue substituted with 0-3 R^{6e}, and a (CH₂)_r-5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S,
30 substituted with 0-3 R^{6e};

R^{6e}, at each occurrence, is selected from C₁₋₆ alkyl, C₂₋₈ alkenyl, C₂₋₈ alkynyl, (CH₂)_r-C₃₋₆ cycloalkyl, Cl, F,

Br, I, CN, NO₂, (CF₂)_rCF₃, (CH₂)_rOC₁₋₅ alkyl, OH, SH,
(CH₂)_rSC₁₋₅ alkyl, (CH₂)_rNR^{6f}R^{6f}, and (CH₂)_rphenyl;

5 R^{6f}, at each occurrence, is selected from H, C₁₋₅ alkyl,
and C₃₋₆ cycloalkyl, and phenyl;

R^{6g} is independently selected from -C(O)R^{6b}, -C(O)OR^{6d},
-C(O)NR^{6f}R^{6f}, and (CH₂)_rphenyl;

10 R⁷, at each occurrence, is selected from C₁₋₈ alkyl, C₂₋₈
alkenyl, C₂₋₈ alkynyl, (CH₂)_rC₃₋₆ cycloalkyl, Cl, Br,
I, F, NO₂, CN, (CR'R')_rNR^{7a}R^{7a}, (CR'R')_rOH,
(CR'R')_rO(CR'R')_rR^{7d}, (CR'R')_rSH, (CR'R')_rC(O)H,
(CR'R')_rS(CR'R')_rR^{7d}, (CR'R')_rC(O)OH,
15 (CR'R')_rC(O)(CR'R')_rR^{7b}, (CR'R')_rC(O)NR^{7a}R^{7a},
(CR'R')_rNR^{7f}C(O)(CR'R')_rR^{7b}, (CR'R')_rC(O)O(CR'R')_rR^{7d},
(CR'R')_rOC(O)(CR'R')_rR^{7b},
(CR'R')_rOC(O)NR^{7a}(CR'R')_rR^{7a},
(CR'R')_rNR^{7a}C(O)NR^{7a}(CR'R')_rR^{7a},
20 (CR'R')_rNR^{7f}C(O)O(CR'R')_rR^{7d}, (CR'R')_rC(=NR^{7f})NR^{7a}R^{7a},
(CR'R')_rNHC(=NR^{7f})NR^{7f}R^{7f}, (CR'R')_rS(O)_p(CR'R')_rR^{7b},
(CR'R')_rS(O)₂NR^{7a}R^{7a}, (CR'R')_rNR^{7a}S(O)₂NR^{7a}R^{7a},
(CR'R')_rNR^{7f}S(O)₂(CR'R')_rR^{7b}, C₁₋₆ haloalkyl, C₂₋₈
alkenyl substituted with 0-3 R', C₂₋₈ alkynyl
25 substituted with 0-3 R', and (CR'R')_rphenyl
substituted with 0-3 R^{7e};

alternatively, two R⁷ on adjacent atoms on R² may join to
form a cyclic acetal;

30

R^{7a}, at each occurrence, is independently selected from H,
methyl substituted with 0-1 R^{7g}, C₂₋₆ alkyl
substituted with 0-2 R^{7e}, C₃₋₈ alkenyl substituted

with 0-2 R^{7e}, C₃₋₈ alkynyl substituted with 0-2 R^{7e},
 a (CH₂)_r-C₃₋₁₀ carbocyclic residue substituted with
 0-5 R^{7e}, and a (CH₂)_r-5-10 membered heterocyclic
 system containing 1-4 heteroatoms selected from N,
 5 O, and S, substituted with 0-2 R^{7e};

R^{7b}, at each occurrence, is selected from C₁₋₆ alkyl
 substituted with 0-2 R^{7e}, C₃₋₈ alkenyl substituted
 with 0-2 R^{7e}, C₃₋₈ alkynyl substituted with 0-2 R^{7e},
 10 a (CH₂)_r-C₃₋₆ carbocyclic residue substituted with 0-3
 R^{7e}, and a (CH₂)_r-5-6 membered heterocyclic system
 containing 1-4 heteroatoms selected from N, O, and
 S, substituted with 0-2 R^{7e};

15 R^{7d}, at each occurrence, is selected from C₃₋₈ alkenyl
 substituted with 0-2 R^{7e}, C₃₋₈ alkynyl substituted
 with 0-2 R^{7e}, methyl, CF₃, C₂₋₄ haloalkyl, C₂₋₆ alkyl
 substituted with 0-3 R^{7e}, a (CH₂)_r-C₃₋₁₀ carbocyclic
 residue substituted with 0-3 R^{7e}, and a (CH₂)_r-5-6
 20 membered heterocyclic system containing 1-4
 heteroatoms selected from N, O, and S, substituted
 with 0-3 R^{7e};

R^{7e}, at each occurrence, is selected from C₁₋₆ alkyl, C₂₋₈
 25 alkenyl, C₂₋₈ alkynyl, (CH₂)_r-C₃₋₆ cycloalkyl, Cl, F,
 Br, I, CN, NO₂, (CF₂)_rCF₃, (CH₂)_rOC₁₋₅ alkyl, OH, SH,
 C(O)OC₁₋₅ alkyl, (CH₂)_rSC₁₋₅ alkyl, (CH₂)_rNR^{7f}R^{7f}, and
 (CH₂)_rphenyl;

30 R^{7f}, at each occurrence, is selected from H, C₁₋₅ alkyl,
 and C₃₋₆ cycloalkyl, and phenyl;

R^{7g} is independently selected from -C(O)R^{7b}, -C(O)OR^{7d},
 -C(O)NR^{7f}R^{7f}, and (CH₂)_rphenyl;

R', at each occurrence, is selected from H, C₁₋₆ alkyl substituted with R^{6e}, C₂₋₈ alkenyl, C₂₋₈ alkynyl, (CH₂)_rC₃₋₆ cycloalkyl, and (CH₂)_rphenyl substituted
 5 with R^{6e};

R⁸ is selected from H, C₁₋₄ alkyl, and C₃₋₄ cycloalkyl;

R⁹ is selected from H, C₁₋₄ alkyl, C₃₋₄ cycloalkyl,
 10 -C(O)H, and -C(O)-C₁₋₄alkyl;

R¹⁰ is independently selected from H, and C₁₋₄alkyl substituted with 0-1 R^{10b};

15 R^{10b}, at each occurrence, is independently selected from -OH, -SH, -NR^{10c}R^{10c}, -C(O)NR^{10c}R^{10c}, and -NHC(O)R^{10c};

R^{10c} is selected from H, C₁₋₄ alkyl and C₃₋₆ cycloalkyl;

20 R¹¹ is selected from H, C₁₋₄ alkyl, (CHR)_qOH, (CHR)_qSH, (CHR)_qOR^{11d}, (CHR)_qS(O)_pR^{11d}, (CHR)_rC(O)R^{11b}, (CHR)_rNR^{11a}R^{11a}, (CHR)_rC(O)NR^{11a}R^{11a}, (CHR)_rC(O)NR^{11a}OR^{11d}, (CHR)_qNR^{11a}C(O)R^{11b}, (CHR)_qNR^{11a}C(O)OR^{11d}, (CHR)_qOC(O)NR^{11a}R^{11a},
 25 (CHR)_rC(O)OR^{11d}, a (CHR)_r-C₃₋₆ carbocyclic residue substituted with 0-5 R^{11e}, and a (CHR)_r-5-10 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3 R^{11e};

30 R^{11a}, at each occurrence, is independently selected from H, C₁₋₄ alkyl, C₃₋₄ alkenyl, C₃₋₄ alkynyl, (CH₂)_rC₃₋₆ cycloalkyl, a (CH₂)_r-C₃₋₆ carbocyclic residue substituted with 0-5 R^{11e}, and a (CH₂)_r-5-6 membered

heterocyclic system containing 1-4 heteroatoms
selected from N, O, and S, substituted with 0-3 R^{11e};

R^{11b}, at each occurrence, is independently selected from
5 C₁₋₄ alkyl, C₂₋₄ alkenyl, C₂₋₄ alkynyl, a (CH₂)_r-C₃₋₆
carbocyclic residue substituted with 0-2 R^{11e}, and a
(CH₂)_r-5-6 membered heterocyclic system containing
1-4 heteroatoms selected from N, O, and S,
substituted with 0-3 R^{11e};

10

R^{11d}, at each occurrence, is independently selected from
H, methyl, -CF₃, C₂₋₄ alkyl, C₃₋₆ alkenyl, C₃₋₆
alkynyl, a C₃₋₆ carbocyclic residue substituted with
0-3 R^{11e}, and a (CH₂)_r-5-6 membered heterocyclic
15 system containing 1-4 heteroatoms selected from N,
O, and S, substituted with 0-3 R^{11e};

R^{11e}, at each occurrence, is selected from C₁₋₆ alkyl, C₂₋₈
alkenyl, C₂₋₈ alkynyl, C₃₋₆ cycloalkyl, Cl, F, Br, I,
20 CN, NO₂, (CF₂)_rCF₃, (CH₂)_rOC₁₋₅ alkyl, OH, -O-C₁₋₆
alkyl, SH, (CH₂)_rSC₁₋₅ alkyl, (CH₂)_rNR^{11f}R^{11f}, and
(CH₂)_rphenyl;

R^{11f}, at each occurrence, is selected from H, C₁₋₆ alkyl,
25 and C₃₋₆ cycloalkyl;

R¹² is selected from H, C₁₋₄ alkyl, (CHR)_qOH, (CHR)_qSH,
(CHR)_qOR^{12d}, (CHR)_qS(O)_pR^{12d}, (CHR)_rC(O)R^{12b},
(CHR)_rNR^{12a}R^{12a}, (CHR)_rC(O)NR^{12a}R^{12a},
30 (CHR)_rC(O)NR^{12a}OR^{12d}, (CHR)_qNR^{12a}C(O)R^{12b},
(CHR)_qNR^{12a}C(O)OR^{12d}, (CHR)_qOC(O)NR^{12a}R^{12a},

- (CHR)_rC(O)OR^{12d}, a (CHR)_r-C₃₋₆ carbocyclic residue substituted with 0-5 R^{12e}, and a (CHR)_r-5-10 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3 R^{12e};
- 5 R^{12a}, at each occurrence, is independently selected from H, C₁₋₄ alkyl, C₃₋₄ alkenyl, C₃₋₄ alkynyl, (CH₂)_rC₃₋₆ cycloalkyl, a (CH₂)_r-C₃₋₆ carbocyclic residue substituted with 0-5 R^{12e}, and a (CH₂)_r-5-6 membered
- 10 heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3 R^{12e};
- R^{12b}, at each occurrence, is independently selected from C₁₋₄ alkyl, C₂₋₄ alkenyl, C₂₋₄ alkynyl, a (CH₂)_r-C₃₋₆
- 15 carbocyclic residue substituted with 0-2 R^{12e}, and a (CH₂)_r-5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3 R^{12e};
- 20 R^{12d}, at each occurrence, is independently selected from H, methyl, -CF₃, C₂₋₄ alkyl, C₃₋₆ alkenyl, C₃₋₆ alkynyl, a C₃₋₆ carbocyclic residue substituted with 0-3 R^{12e}, and a (CH₂)_r-5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N,
- 25 O, and S, substituted with 0-3 R^{12e};
- R^{12e}, at each occurrence, is selected from C₁₋₆ alkyl, C₂₋₈ alkenyl, C₂₋₈ alkynyl, C₃₋₆ cycloalkyl, Cl, F, Br, I, CN, NO₂, (CF₂)_rCF₃, (CH₂)_rOC₁₋₅ alkyl, OH, -O-C₁₋₆
- 30 alkyl, SH, (CH₂)_rSC₁₋₅ alkyl, (CH₂)_rNR^{12f}R^{12f}, and (CH₂)_rphenyl;

R^{12f} , at each occurrence, is selected from H, C_{1-6} alkyl, and C_{3-6} cycloalkyl;

5 R^{13} , at each occurrence, is independently selected from H, and C_{1-4} alkyl substituted with 0-1 R^{13b} , -OH, -NH₂, F, Cl, Br, I, -OR^{13a}, -N(R^{13a})₂, and C_{1-4} alkyl substituted with 0-3 R^{13b} ;

10 R^{13a} is selected from H, C_{1-4} alkyl and C_{3-6} cycloalkyl;

R^{13b} , at each occurrence, is independently selected from -OH, -SH, -NR^{13c}R^{13c}, -C(O)NR^{13c}R^{13c}, and -NHC(O)R^{13c};

15 R^{13c} is selected from H, C_{1-4} alkyl and C_{3-6} cycloalkyl;

R^{14} , at each occurrence, is independently selected from H and C_{1-4} alkyl;

20 alternatively, two R^{14} s, along with the carbon atom to which they are attached, join to form a C_{3-6} carbocyclic ring;

R^{15} , at each occurrence, is independently selected from H,
25 C_{1-4} alkyl, OH, NH₂, -O- C_{1-4} alkyl, NR^{15a}R^{15a},
C(O)NR^{15a}R^{15a}, NR^{15a}C(O)R^{15b}, NR^{15a}C(O)OR^{15d},
OC(O)NR^{15a}R^{15a}, and (CHR)_rC(O)OR^{15d};

alternatively, two R^{15} s, along with the carbon atom or
30 atoms to which they are attached, join to form a C_{3-6} carbocyclic ring;

R^{15a}, at each occurrence, is independently selected from
H, and C₁₋₄ alkyl;

R^{15b}, at each occurrence, is independently selected from
5 C₁₋₄ alkyl, C₃₋₆ alkenyl, and C₃₋₆ alkynyl;

R^{15d}, at each occurrence, is independently selected from
C₁₋₄ alkyl, C₃₋₆ alkenyl, and C₃₋₆ alkynyl;

10 R¹⁶ is selected from C₁₋₄ alkyl;

l is selected from 1, 2 and 3;

n is selected from 0, 1, 2, and 3;

15

m is selected from 0 and 1;

p, at each occurrence, is independently selected from 0,
1, and 2;

20

q, at each occurrence, is independently selected from 1,
2, 3, and 4;

r, at each occurrence, is independently selected from 0,
25 1, 2, 3, and 4;

t, at each occurrence, is independently selected from 2,
3, and 4;

30 s is selected from 0 and 1.

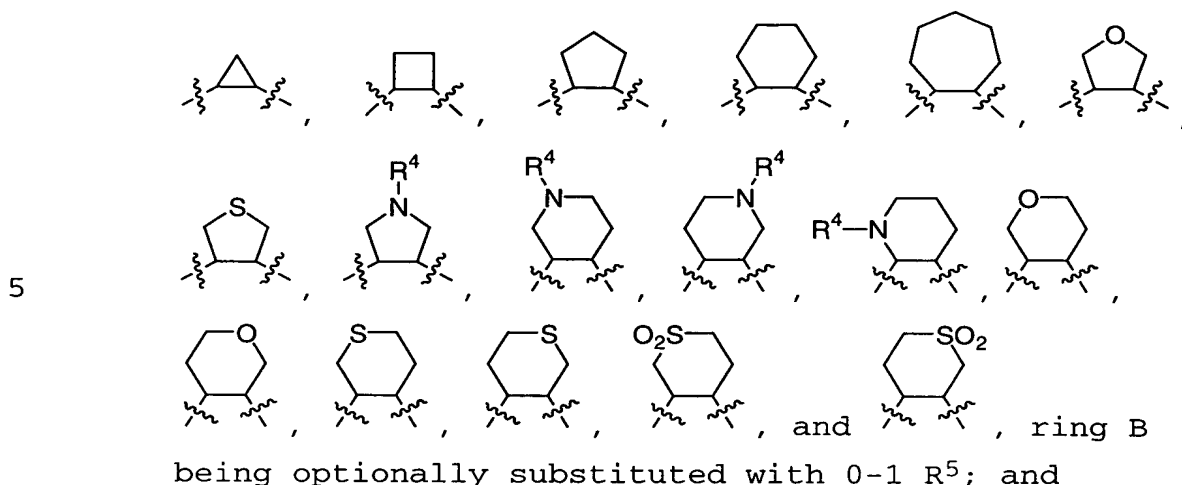
3. The compound of claim 2, wherein

m is 0.

35

4. The compound of claim 3, wherein:

ring B is selected from



R^{11} and R^{12} are H.

5. The compounds of claim 4, wherein:

R^5 , at each occurrence, is independently selected from H ,

15 C₁₋₆ alkyl, C₂₋₈ alkenyl, C₂₋₈ alkynyl, (CRR)_rOH,
(CRR)_rSH, (CRR)_rOR^{5d}, (CRR)_rSR^{5d}, (CRR)_rNR^{5a}R^{5a},
(CRR)_rC(O)OH, (CRR)_rC(O)R^{5b}, (CRR)_rC(O)NR^{5a}R^{5a},
(CRR)_rNR^{5a}C(O)R^{5b}, (CRR)_rNR^{5a}C(O)OR^{5d},
(CRR)_rOC(O)NR^{5a}R^{5a}, (CHR)_rNR^{5a}C(O)NR^{5a}R^{5a},
CRR(CRR)_rNR^{5a}C(O)H, (CRR)_rC(O)OR^{5b}, (CRR)_rOC(O)R^{5b},
20 (CRR)_rS(O)_pR^{5b}, (CRR)_rS(O)₂NR^{5a}R^{5a}, (CRR)_rNR^{5a}S(O)₂R^{5b},
and C₁₋₆ haloalkyl;

R^{5a} , at each occurrence, is independently selected from H,

25 methyl, C₁₋₆ alkyl substituted with 0-2 R^{5e} wherein
the alkyl is selected from ethyl, propyl, i-propyl,
butyl, i-butyl, pentyl, hexyl, C₃ alkenyl substituted
with 0-1 R^{5e}, wherein the alkenyl is selected from
allyl, C₃ alkynyl substituted with 0-1 R^{5e} wherein

the alkynyl is selected from propynyl, and a
 $(\text{CH}_2)_r\text{-C}_{3-4}$ carbocyclic residue substituted with 0-5
 R^{5e} , wherein the carbocyclic residue is selected from
cyclopropyl, and cyclobutyl;

5

R^{5b} , at each occurrence, is selected from C_{1-6} alkyl
substituted with 0-2 R^{5e} , wherein the alkyl is
selected from methyl, ethyl, propyl, i-propyl,
butyl, i-butyl, pentyl, and hexyl, a $(\text{CH}_2)_r\text{-C}_{3-4}$
10 carbocyclic residue substituted with 0-2 R^{5e} , wherein
the carbocyclic residue is selected from
cyclopropyl, and cyclobutyl; and

R^{5d} , at each occurrence, is selected from methyl, CF_3 ,
15 C_{2-6} alkyl substituted with 0-2 R^{5e} , wherein the
alkyl is selected from methyl, ethyl, propyl,
i-propyl, butyl, i-butyl, pentyl, and hexyl, C_{3-8}
alkenyl, C_{3-8} alkynyl, and a C_{3-10} carbocyclic
residue substituted with 0-3 R^{5e} .

20

6. The compound of claim 5, wherein:

R^4 is selected from H, C_{1-6} alkyl, C_{3-8} alkenyl, C_{3-8}
alkynyl, $(\text{CRR})_t\text{OH}$, $(\text{CRR})_t\text{SH}$, $(\text{CRR})_t\text{OR}^{4d}$, $(\text{CRR})_t\text{SR}^{4d}$,
25 $(\text{CRR})_t\text{NR}^{4a}\text{R}^{4a}$, $(\text{CRR})_q\text{C}(\text{O})\text{OH}$, $(\text{CRR})_r\text{C}(\text{O})\text{R}^{4b}$,
 $(\text{CRR})_r\text{C}(\text{O})\text{NR}^{4a}\text{R}^{4a}$, $(\text{CRR})_t\text{NR}^{4a}\text{C}(\text{O})\text{R}^{4b}$,
 $(\text{CRR})_t\text{OC}(\text{O})\text{NR}^{4a}\text{R}^{4a}$, $(\text{CRR})_t\text{NR}^{4a}\text{C}(\text{O})\text{OR}^{4d}$,
 $(\text{CRR})_t\text{NR}^{4a}\text{C}(\text{O})\text{R}^{4b}$, $(\text{CRR})_r\text{C}(\text{O})\text{OR}^{4b}$, $(\text{CRR})_t\text{OC}(\text{O})\text{R}^{4b}$,
 $(\text{CRR})_r\text{S}(\text{O})_p\text{R}^{4b}$, $(\text{CRR})_r\text{S}(\text{O})_2\text{NR}^{4a}\text{R}^{4a}$, $(\text{CRR})_r\text{NR}^{4a}\text{S}(\text{O})_2\text{R}^{4b}$;

30

R, at each occurrence, is independently selected from H,
methyl, ethyl, propyl, allyl, propynyl, $(\text{CH}_2)_r\text{C}_{3-6}$
cycloalkyl, and $(\text{CH}_2)_r\text{phenyl}$ substituted with R^{6e} ;

R^5 , at each occurrence, is independently selected from H,
 methyl, ethyl, propyl, i-propyl, butyl, i-butyl,
 allyl, propynyl, $(CH_2)_rOH$, $(CH_2)_rOR^{5d}$, $(CH_2)_rNR^{5a}R^{5a}$,
 $(CH_2)_rC(O)OH$, $(CH_2)_rC(O)R^{5b}$, $(CH_2)_rC(O)NR^{5a}R^{5a}$,
 5 $(CH_2)_rNR^{5a}C(O)R^{5b}$, $(CH_2)_rOC(O)NR^{5a}R^{5a}$,
 $(CH_2)_rNR^{5a}C(O)OR^{5d}$, $(CH_2)_rNR^{5a}C(O)R^{5b}$, $(CH_2)_rC(O)OR^{5b}$,
 $(CH_2)_rOC(O)R^{5b}$, $(CH_2)_rNR^{5a}S(O)_2R^{5b}$, and C_{1-6}
 haloalkyl;

10 R^{5a} , at each occurrence, is independently selected from H,
 methyl, ethyl, propyl, i-propyl, butyl, i-butyl,
 pentyl, hexyl, cyclopropyl, and cyclobutyl; and

15 r , at each occurrence, is selected from 0, 1, and 2.

7. The compound of claim 6, wherein:

R^1 is selected from phenyl substituted with 0-2 R^6 ,
 naphthyl substituted with 0-2 R^6 , and a 5-10
 20 membered heteroaryl system containing 1-4
 heteroatoms selected from N, O, and S, substituted
 with 0-3 R^6 wherein the heteroaryl is selected from
 indolyl, benzimidazolyl, benzofuranyl,
 benzothiofuranyl, benzoxazolyl, benzthiazolyl,
 25 benzo[b]thiophene, benztriazolyl, benztetrazolyl,
 benzisoxazolyl, benzisothiazolyl, benzimidazalonyl,
 cinnolinyl, furanyl, imidazolyl, indazolyl, indolyl,
 isoquinolinyl, isothiazolyl, isoxazolyl, oxazolyl,
 pyrazinyl, pyrazolyl, pyridazinyl, pyridyl,
 30 pyrido[2,3-d]pyrimidinyl, pyrimido[5,4-
 d]pyrimidinyl, thieno[3,2-d]pyrimidinyl, pyridinyl,
 pyrimidinyl, pyrrolyl, pyrrolo[2,1-
 f][1,2,4]triazine, quinazolinyl, quinolinyl,
 thiazolyl, thienyl, and tetrazolyl;

R^2 is selected from phenyl substituted with 0-2 R^7 , and a
 5-10 membered heteroaryl system containing 1-4
 heteroatoms selected from N, O, and S, substituted
 5 with 0-3 R^7 wherein the heteroaryl is selected from
 indolyl, benzimidazolyl, benzofuranyl,
 benzothiofuranyl, benzoxazolyl, benzthiazolyl,
 benzo[b]thiophene, benztriazolyl, benztetrazolyl,
 benzisoxazolyl, benzisothiazolyl, benzimidazalonyl,
 10 cinnolinyl, furanyl, imidazolyl, indazolyl, indolyl,
 isoquinolinyl isothiazolyl, isoxazolyl, oxazolyl,
 phthalazinyl, pyrazinyl, pyrazolyl, pyridazinyl,
 pyridyl, pyrido[2,3-d]pyrimidinyl, thieno[3,2-
 d]pyrimidinyl, pyridinyl, pyrimidinyl, pyrrolyl,
 15 pyrrolo[2,1-f][1,2,4]triazine, quinazolinyl,
 quinolinyl, thiazolyl, thienyl, and tetrazolyl;

R^4 is selected from H, methyl, ethyl, propyl, i-propyl,
 butyl, i-butyl, allyl, propynyl, $(CRR)_qOH$, $(CRR)_tSH$,
 20 $(CRR)_tOR^{4d}$, $(CRR)_tSR^{4d}$, $(CRR)_tNR^{4a}R^{4a}$, $(CRR)_qC(O)OH$,
 $(CRR)_rC(O)R^{4b}$, $(CRR)_rC(O)NR^{4a}R^{4a}$, $(CRR)_tNR^{4a}C(O)R^{4b}$,
 $(CRR)_tOC(O)NR^{4a}R^{4a}$, $(CRR)_tNR^{4a}C(O)OR^{4d}$,
 $(CRR)_tNR^{4a}C(O)R^{4b}$, $(CRR)_rC(O)OR^{4b}$, $(CRR)_tOC(O)R^{4b}$,
 $(CRR)_rS(O)_pR^{4b}$, $(CRR)_rS(O)_2NR^{4a}R^{4a}$, $(CRR)_rNR^{4a}S(O)_2R^{4b}$;

25 R^{4a} , at each occurrence, is independently selected from H,
 methyl substituted with 0-1 R^{4c} , C_{2-6} alkyl
 substituted with 0-3 R^{4e} wherein C_{2-6} is selected
 from ethyl, propyl, i-propyl, butyl, i-butyl,
 30 t-butyl, pentyl and hexyl, and a $(CH_2)_r-C_{3-6}$
 carbocyclic residue substituted with 0-4 R^{4e} wherein
 the carbocyclic residue is selected from
 cyclopropyl, cyclohexyl, and phenyl;

R^{4b} is selected from H, methyl, ethyl, propyl, i-propyl, butyl, i-butyl, t-butyl, pentyl, and cyclopropyl;

5 R^{4d} is selected from methyl, ethyl, propyl, i-propyl, butyl, i-butyl, t-butyl, pentyl, and cyclopropyl; and

10 R⁸ is selected from H, methyl, ethyl, propyl, i-propyl, and cyclopropyl.

8. The compound of claim 7, wherein:

15 R⁶, at each occurrence, is selected from C₁₋₈ alkyl, C₂₋₈ alkenyl, C₂₋₈ alkynyl, (CR'R')_rC₃₋₆ cycloalkyl, Cl, Br, I, F, NO₂, CN, (CR'R')_rNR^{6a}R^{6a}, (CR'R')_rOH, (CR'R')_rO(CR'R')_rR^{6d}, (CR'R')_rSH, (CR'R')_rC(O)H, (CR'R')_rS(CR'R')_rR^{6d}, (CR'R')_rC(O)OH, (CR'R')_rC(O)(CR'R')_rR^{6b}, (CR'R')_rC(O)NR^{6a}R^{6a}, (CR'R')_rNR^{6f}C(O)(CR'R')_rR^{6b}, (CR'R')_rC(O)O(CR'R')_rR^{6d}, 20 (CR'R')_rNR^{6a}C(O)NR^{6a}R^{6a}, (CR'R')_rNR^{6a}C(S)NR^{6a}R^{6a}, (CR'R')_rOC(O)(CR'R')_rR^{6b}, (CR'R')_rS(O)_p(CR'R')_rR^{6b}, (CR'R')_rS(O)₂NR^{6a}R^{6a}, (CR'R')_rNR^{6f}S(O)₂(CR'R')_rR^{6b}, (CR'R')_rNR^{6f}S(O)₂NR^{6a}R^{6a}, C₁₋₆ haloalkyl, and (CR'R')_rphenyl substituted with 0-3 R^{6e}, and a 25 (CH₂)_{r-5-6} membered heterocyclic system containing 1-2 heteroatoms selected from N, O, and S, substituted with 0-2 R^{6e};

30 R^{6a}, at each occurrence, is independently selected from H, methyl, ethyl, propyl, i-propyl, butyl, i-butyl, t-butyl, pentyl, hexyl, cyclopropyl and phenyl;

35 R^{6b}, at each occurrence, is selected from methyl, ethyl, propyl, i-propyl, butyl, i-butyl, t-butyl, pentyl, hexyl, cyclopropyl, and phenyl;

R^{6d}, at each occurrence, is selected from methyl, CF₃, ethyl, propyl, i-propyl, butyl, i-butyl, t-butyl, pentyl, hexyl, cyclopropyl, and phenyl;

5

R^{6e}, at each occurrence, is selected from C₁₋₆ alkyl, C₂₋₈ alkenyl, C₂₋₈ alkynyl, (CH₂)_rC₃₋₆ cycloalkyl, Cl, F, Br, I, CN, NO₂, (CF₂)_rCF₃, (CH₂)_rOC₁₋₅ alkyl, OH, SH, (CH₂)_rSC₁₋₅ alkyl, (CH₂)_rNR^{6f}R^{6f}, and (CH₂)_rphenyl;

10

R^{6f}, at each occurrence, is selected from H, methyl, ethyl, propyl, i-propyl, butyl, i-butyl, t-butyl, pentyl, hexyl, cyclopropyl, and phenyl;

15 R⁷ is selected from methyl, ethyl, propyl, i-propyl, butyl, i-butyl, s-butyl, t-butyl, pentyl, hexyl, (CR'R')_rC₃₋₆ cycloalkyl, Cl, Br, I, F, NO₂, CN, (CR'R')_rNR^{7a}R^{7a}, (CR'R')_rOH, (CR'R')_rO(CH)_rR^{7d}, (CR'R')_rSH, (CR'R')_rC(O)H, (CR'R')_rS(CR'R')_rR^{7d},
 20 (CR'R')_rC(O)OH, (CR'R')_rC(O)(CR'R')_rR^{7b}, (CR'R')_rC(O)NR^{7a}R^{7a}, (CR'R')_rNR^{7f}C(O)(CR'R')_rR^{7b}, (CR'R')_rC(O)O(CR'R')_rR^{7d}, (CR'R')_rOC(O)(CR'R')_rR^{7b}, (CR'R')_rNR^{7a}C(O)NR^{7a}R^{7a}, (CR'R')_rNR^{7a}C(O)O(CR'R')_rR^{7d}, (CR'R')_rS(O)_p(CR'R')_rR^{7b}, (CR'R')_rS(O)₂NR^{7a}R^{7a},
 25 (CR'R')_rNR^{7f}S(O)₂(CR'R')_rR^{7b}, C₁₋₆ haloalkyl, and (CR'R')_rphenyl substituted with 0-3 R^{7e};

R^{7a}, at each occurrence, is selected from H, methyl, ethyl, propyl, i-propyl, butyl, i-butyl, t-butyl, pentyl, hexyl, prop-2-enyl, 2-methyl-2-propenyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, CH₂cyclopropyl, and benzyl;

30

R^{7b}, at each occurrence, is selected from methyl, ethyl, propyl, i-propyl, butyl, i-butyl, t-butyl, pentyl,

35

hexyl, cyclopropyl, cyclopentyl, CH₂-cyclopentyl, cyclohexyl, CH₂-cyclohexyl, CF₃, pyrrolidinyl, morpholinyl, piperizenyl substituted with 0-1 R^{7e}, and azetidiny;

5

R^{7d}, at each occurrence, is selected from methyl, CF₃, CF₂CF₃, CHF₂, CH₂F, ethyl, propyl, i-propyl, butyl, i-butyl, t-butyl, pentyl, hexyl, and cyclopropyl;

10 R^{7e}, at each occurrence, is selected from C₁₋₆ alkyl, C₂₋₈ alkenyl, C₂₋₈ alkynyl, (CH₂)_rC₃₋₆ cycloalkyl, Cl, F, Br, I, CN, NO₂, (CF₂)_rCF₃, (CH₂)_rOC₁₋₅ alkyl, OH, SH, C(O)OC₁₋₅ alkyl, (CH₂)_rSC₁₋₅ alkyl, (CH₂)_rNR^{7f}R^{7f}, and (CH₂)_rphenyl;

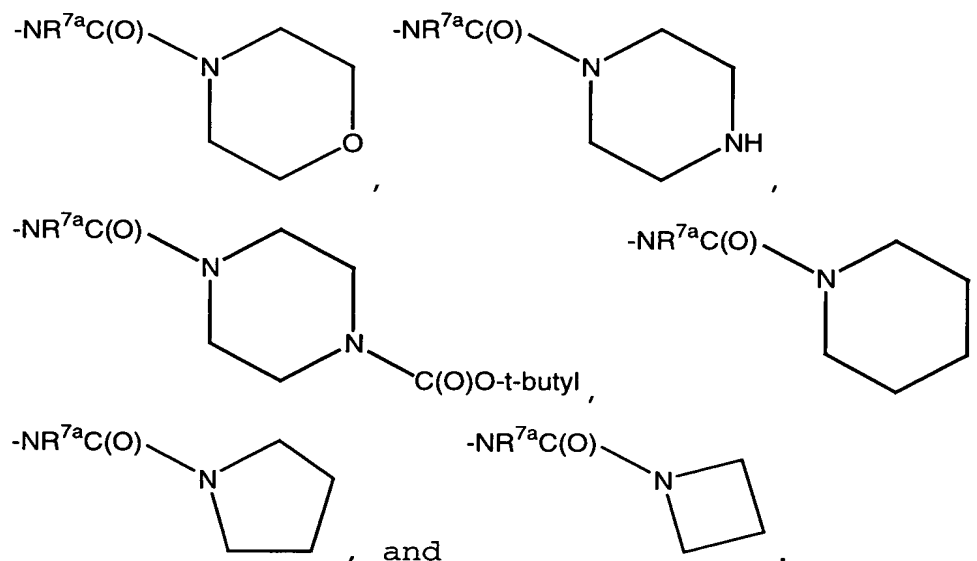
15

R^{7f}, at each occurrence, is selected from H, methyl, ethyl, propyl, i-propyl, butyl, i-butyl, t-butyl, pentyl, hexyl, cyclopropyl, and phenyl; and

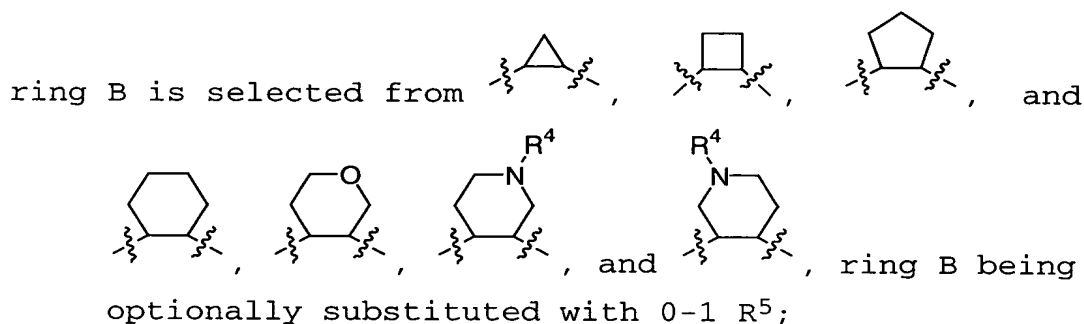
20 r is 0 or 1.

9. The compound of claim 8, wherein:

25 R⁷ is selected from methyl, ethyl, propyl, i-propyl, butyl, i-butyl, s-butyl, pentyl, hexyl, Cl, Br, I, F, CN, NO₂, NR^{7a}R^{7a}, NHC(O)NHR^{7a}, NR^{7a}C(O)R^{7b}, NR^{7a}C(O)OR^{7d}, CF₃, CF₂CF₃, CHF₂, CH₂F, OCF₃, C(O)R^{7b}, C(O)OR^{7d}, NR^{7f}C(O)NR^{7a}R^{7a}, NHS(O)₂R^{7b},



5 10. The compound of claim 9, wherein:



10

Z is selected from a bond, $\text{-NR}^8\text{C(O)-}$, -C(O)NH- , and -NHC(O)NH- ;

R^1 is selected from a C_{6-10} aryl group substituted with 0-3 R^6 wherein the aryl group is selected from phenyl and naphthyl, and a 5-10 membered heteroaryl system containing 1-4 heteroatoms selected from N and O, substituted with 0-3 R^6 wherein the heteroaryl system is selected from indolyl, pyridinyl, pyrimidinyl, pyrido[2,3-d]pyrimidinyl, thieno[3,2-d]pyrimidinyl, imidazyolyl, and pyrrolyl
 R^2 is phenyl substituted with 0-2 R^7 ;

R^4 is selected from H, methyl, ethyl, propyl, i-propyl, butyl, i-butyl, t-butyl, pentyl, hexyl, and $(CH_2)_r C(O)R^{4b}$;

5 R^6 is selected from methyl, ethyl, propyl, i-propyl, butyl, F, Cl, Br, I, NO_2 , CN, $O(CH_2)_r R^{6d}$, $C(O)H$, $C(O)R^{6d}$, $C(O)OH$, SR^{6d} , $NR^{6a}R^{6a}$, $NC(O)R^{6b}$, $OC(O)R^{6b}$, $S(O)_p R^{6b}$, $(CHR')_r S(O)_2 NR^{6a}R^{6a}$, and CF_3 ;

10 R^{6a} is H, methyl, or ethyl;

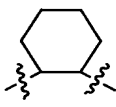
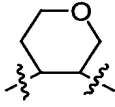
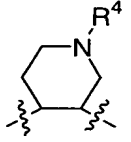
R^{6b} is H, methyl, ethyl, propyl, i-propyl or butyl;

R^{6d} is methyl, phenyl, CF_3 , and (CH_2) -phenyl; and

15

r is 0 or 1.

11. The compound of claim 10, wherein:

20 ring B is selected from , , and , ring B being substituted with 0-1 R^5 ;

25 R^1 is selected from a C_{6-10} aryl group substituted with 0-3 R^6 wherein the aryl group is selected from phenyl, and a 5-10 membered heteroaryl system containing 1-4 heteroatoms selected from N and O, substituted with 0-3 R^6 wherein the heteroaryl system is selected from indolyl and pyridinyl;

30 R^4 is selected from H, methyl, ethyl, propyl, i-propyl, butyl, i-butyl, t-butyl, pentyl, hexyl, allyl and $(CH_2)_r C(O)R^{4b}$;

R⁵ is selected from H, OH, OCH₃, and NR^{5a}R^{5a};

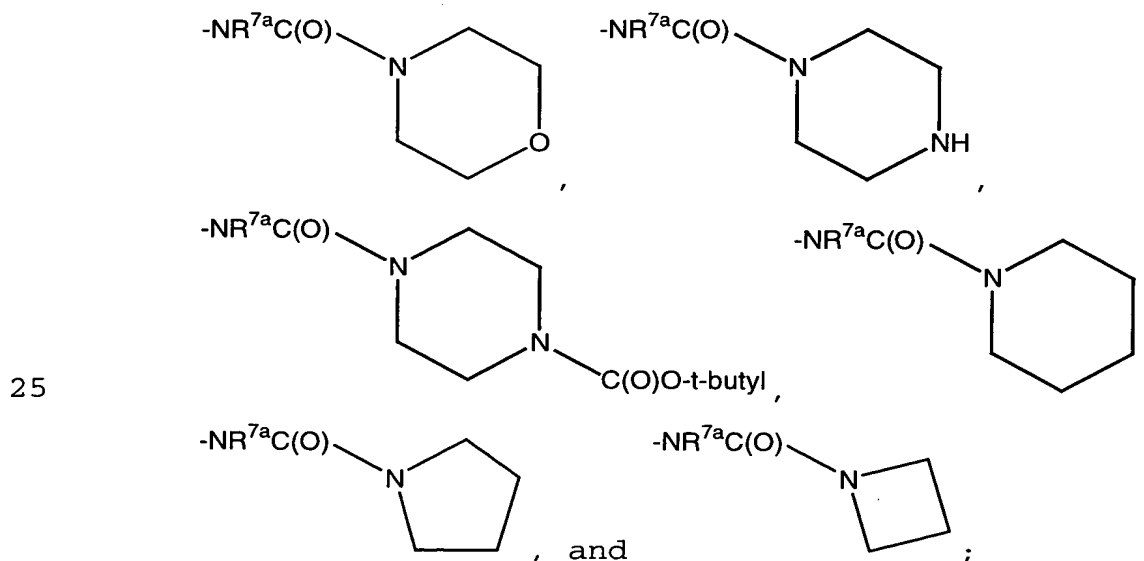
5 R^{5a} is selected from H, methyl, ethyl, propyl, i-propyl, butyl, s-butyl, i-butyl, t-butyl, pentyl, hexyl, allyl, propargyl, cyclopropyl, cyclopropylmethyl, acetyl, methanesulfonyl, -C(O)CF₃, C(=N)NH₂, benzyl, and -C(O)O-t-butyl;

10 R⁶ is selected from methyl, ethyl, propyl, i-propyl,
butyl, vinyl, F, Cl, Br, I, CN, NR^{6a}R^{6a}, C(O)H,
C(O)OH, C(O)R^{6b}, SR^{6d}, S(O)_pR^{6d}, S(O)₂NR^{6a}R^{6a}, CF₃,
and CH₂OH;

R^{6b} is H, methyl, ethyl, propyl, i-propyl or butyl;

R^{6d} is methyl;

20 R⁷ is selected from methyl, ethyl, propyl, i-propyl, butyl, i-butyl, s-butyl, pentyl, hexyl, Cl, Br, I, F, CN, NO₂, NR^{7a}R^{7a}, NHC(O)NHR^{7a}, NR^{7a}C(O)R^{7b}, NR^{7a}C(O)OR^{7d}, CF₃, CF₂CF₃, CHF₂, CH₂F, OCF₃, OCF₂CF₃, OCHF₂, and OCH₂F, C(O)OR^{7d}, C(O)R^{7b}, NR^{7f}C(O)NR^{7a}R^{7a}, NHS(O)₂R^{7b},

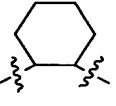


R^{7a} is selected from H, methyl, ethyl, propyl, i-propyl,
butyl, i-butyl, t-butyl, pentyl, neo-pentyl,
cyclopropyl, cyclobutyl, cyclopentyl, and
5 cyclohexyl;

R^{7b} is selected from cyclohexyl and CF₃; and

R^{7d} is selected from methyl, ethyl, propyl, i-propyl,
10 butyl, i-butyl, and t-butyl.

12. The compound of claim 11, wherein:

15 ring B is selected from , ring B being substituted
with 0-1 R⁵;

R¹ is selected from a C₆₋₁₀ aryl group substituted with
0-3 R⁶ wherein the aryl group is phenyl;

20 R⁶ is selected from methyl, ethyl, propyl, i-propyl, F,
Cl, Br, CN, SCH₃, and CF₃;

R⁷ is selected from methyl, ethyl, propyl, i-propyl,
25 butyl, i-butyl, s-butyl, t-butyl, pentyl, hexyl,
phenyl, adamantyl, benzyl, Cl, Br, I, F, CN, NO₂,
NR^{7a}R^{7a}, OR^{7d}, NHC(O)NHR^{7a}, NR^{7a}C(O)R^{7b}, NR^{7a}C(O)OR^{7d},
CF₃, CF₂CF₃, CHF₂, CH₂F, OCF₃, OCF₂CF₃, OCHF₂, and
OCH₂F, C(O)OR^{7d}, C(O)R^{7b}, and NR^{7f}C(O)NR^{7a}R^{7a};

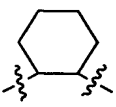
30 R^{7a} is selected from H, methyl, ethyl, propyl, i-propyl,
butyl, i-butyl, t-butyl, pentyl, neo-pentyl,
cyclopropyl, cyclobutyl, cyclopentyl, and
cyclohexyl.

13. The compound of claim 12, wherein

E is selected from $-\text{CH}_2\text{-NH-}$, $-\text{C(O)-NH-}$ and $-\text{SO}_2\text{-CH}_2\text{-}$.

5

14. The compound of claim 1, wherein

B is , ring B being substituted with 0-1 R^5 ; and

10 R^5 is selected from H, $\text{N}(\rightarrow\text{O})\text{R}^{5a}\text{R}^{5a}$, N_3 , $\text{NR}^{5a}\text{C(O)}\text{R}^{5b}$,
 $\text{NR}^{5a}\text{C(O)}\text{H}$, $\text{NR}^{5a}\text{C(O)}\text{OR}^{5d}$, $\text{NR}^{5a}\text{C(O)}\text{NR}^{5a}\text{R}^{5a}$, and $\text{NR}^{5a}\text{R}^{5a}$,
 and a $(\text{CH}_2)_r$ -5-6 membered heterocyclic system
 containing 1-2 heteroatoms selected from N, O, and
 S, substituted with 0-2 R^{5e} , wherein the heterocyclic
 15 system is selected from pyrrolidinyl, piperidinyl,
 pyrrolidin-2-one, and isothiazolidine 1,1-dioxide.

15. The compound of claim 12, wherein

20 Z is selected from a bond, $-\text{NR}^8\text{C(O)-}$, $-\text{C(O)NH-}$, and
 $-\text{NHC(O)NH-}$.

16. The compound of claim 12, wherein

25 R^6 is selected from methyl, ethyl, propyl, i-propyl,
 butyl, vinyl, F, Cl, Br, I, C(O)H , C(O)R^{6b} , SR^{6d} ,
 $\text{S(O)}_p\text{R}^{6d}$, CF_3 , and CH_2OH ;

R^{6b} is H, methyl, ethyl, propyl, i-propyl or butyl;

30

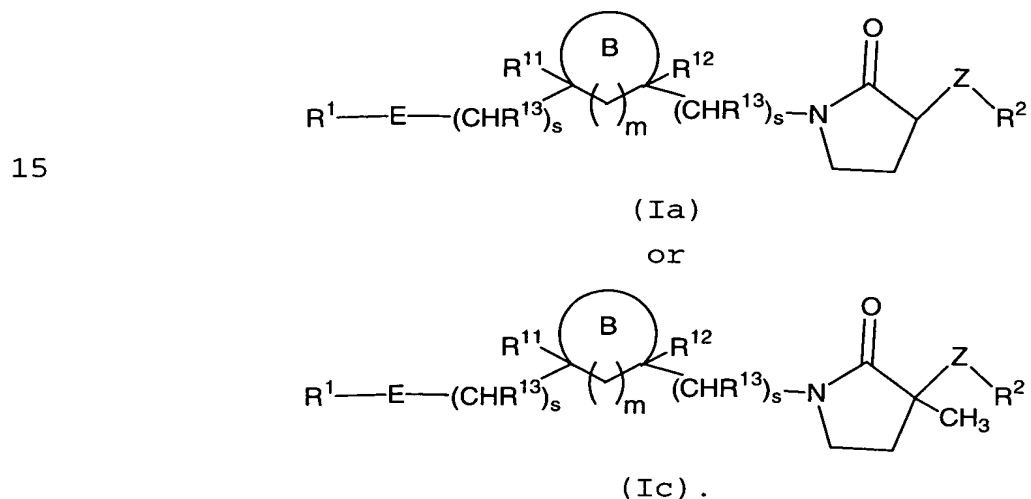
R^{6d} is methyl;

R^7 is selected from Cl, Br, $NR^{7a}R^{7a}$, $NR^{7a}C(O)OR^{7d}$,
 $NHC(O)NHR^{7a}$, OCF_3 , and CF_3 ;

R^{7a} is selected from H, methyl, ethyl, propyl, i-propyl,
 5 butyl, i-butyl, t-butyl, pentyl, neo-pentyl,
 cyclopropyl, cyclobutyl, cyclopentyl, and
 cyclohexyl;

R^{7d} is selected from methyl, ethyl, propyl, i-propyl,
 10 butyl, i-butyl, and t-butyl.

17. The compound of claim 1, wherein the compound
 is of formula (Ia) or (Ic)



18. The compound of claim 1, wherein the compound
 is of formula (I) is selected:

25 2-{(3S)-1-[(1,2-cis)-2-(4-Methylsulfanyl-benzoylamino)-
 cyclohexyl]-2-oxo-pyrrolidin-3-ylcarbamoyl}-4-
 trifluoromethyl-phenyl)-carbamic acid tert-butyl
 ester;

2-{(3S)-1-[(1,2-cis)2-(4-Methylsulfonyl-benzoylamino)-
cyclohexyl]-2-oxo-pyrrolidin-3-ylcarbamoyl}-4-
trifluoromethyl-phenyl)-amino;

5 N-{(3S)-1-[(1S,2R,4R)-(Isopropyl-methyl-amino)-2-
(toluene-4-sulfonylmethyl)-cyclohexyl]-2-oxo-
pyrrolidin-3-yl}-3-trifluoromethyl-benzamide;

10 N-{(3S)-1-[(1S,2R,4S)-(Isopropyl-methyl-amino)-2-
(toluene-4-sulfonylmethyl)-cyclohexyl]-2-oxo-
pyrrolidin-3-yl}-3-trifluoromethyl-benzamide;

15 N-{(3S)-1-[(1S,2R,4R)-2-Benzenesulfonylmethyl-(isopropyl-
methyl-amino)-cyclohexyl]-2-oxo-pyrrolidin-3-yl}-3-
trifluoromethyl-benzamide;

20 N-{(3S)-1-[(1S,2R,4S)-2-Benzenesulfonylmethyl-4-
(isopropyl-methyl-amino)-cyclohexyl]-2-oxo-
pyrrolidin-3-yl}-3-trifluoromethyl-benzamide;

N-{(3S)-1-[(1S,2R,4R)-2-Benzenesulfonylmethyl-4-
(isopropyl-ethyl-amino)-cyclohexyl]-2-oxo-
pyrrolidin-3-yl}-3-trifluoromethyl-benzamide;

25 N-{(3S)-1-[(1S,2R,4S)-2-Benzenesulfonylmethyl-4-
(isopropyl-ethyl-amino)-cyclohexyl]-2-oxo-
pyrrolidin-3-yl}-3-trifluoromethyl-benzamide;

30 N-{(3S)-1-[(1S,2R,4R)-2-Benzenesulfonylmethyl-4-
(isopropyl-cyclopropylmethyl-amino)-cyclohexyl]-2-
oxo-pyrrolidin-3-yl}-3-trifluoromethyl-benzamide;

(±) N-{(3S*)-1-[(1S*,2R*,4R*)-4-Azido-2-(4-methylsulfanyl-benzenesulfonylmethyl)-cyclohexyl]-3-methyl-2-oxo-pyrrolidin-3-yl}-3-trifluoromethyl-benzamide;

5

(±) N-{(3S*)-1-[(1S*,2R*,4R*)-4-Amino-2-(4-methylsulfanyl-benzenesulfonylmethyl)-cyclohexyl]-3-methyl-2-oxo-pyrrolidin-3-yl}-3-trifluoromethyl-benzamide;

10

(±) N-{(3S*)-1-[(1S*,2R*,4R*)-4-Isopropylamino-2-(4-methylsulfanyl-benzenesulfonylmethyl)-cyclohexyl]-3-methyl-2-oxo-pyrrolidin-3-yl}-3-trifluoromethyl-benzamide;

15

(±) N-{(3S*)-1-[(1S*,2R*,4R*)-4-(Isopropyl-methyl-amino)-2-(4-methylsulfanyl-benzenesulfonylmethyl)-cyclohexyl]-3-methyl-2-oxo-pyrrolidin-3-yl}-3-trifluoromethyl-benzamide;

20

(±) N-{(3S*)-1-[(1S*,2R*,4R*)-4-(Isopropyl-prop-2-ynyl-amino)-2-(4-methylsulfanyl-benzenesulfonylmethyl)-cyclohexyl]-3-methyl-2-oxo-pyrrolidin-3-yl}-3-trifluoromethyl-benzamide;

25

(±) N-{(3S*)-1-[(1S*,2R*,4R*)-4-(Cyclopropylmethyl-isopropyl-amino)-2-(4-methylsulfanyl-benzenesulfonylmethyl)-cyclohexyl]-3-methyl-2-oxo-pyrrolidin-3-yl}-3-trifluoromethyl-benzamide;

30

N-{(3S)-1-[4-(Isopropyl-methyl-amino)-2-(4-methylsulfanyl-benzenesulfonylmethyl)-cyclohexyl]-2-

oxo-pyrrolidin-3-yl}-N-methyl-3-trifluoromethyl-
benzamide;

5 N-((3S)-1-[(1S,2R,4R)-4-(Isopropyl-methyl-amino)-2-(4-
methylsulfanyl-benzenesulfonylmethyl)-cyclohexyl]-2-
oxo-pyrrolidin-3-yl)-3-trifluoromethyl-benzamide;

10 1-((3S)-1-[(1S,2R,4R)-4-(Isopropyl-methyl-amino)-2-(4-
methylsulfanyl-benzenesulfonylmethyl)-cyclohexyl]-2-
oxo-pyrrolidin-3-yl)-3-(3-trifluoromethyl-phenyl)-
urea;

15 N-((3S)-1-[(1S,2R,4R)-4-(Isopropyl-methyl-amino)-2-(4-
methylsulfanyl-benzenesulfonylmethyl)-cyclohexyl]-2-
oxo-pyrrolidin-3-yl)-3-trifluoromethyl-
benzenesulfonamide;

20 N-((3S)-1-[(1S,2R,4R)-4-(Isopropyl-methyl-amino)-2-(4-
methylsulfanyl-benzenesulfonylmethyl)-cyclohexyl]-2-
oxo-pyrrolidin-3-yl)-benzamide;

25 {(3S)-1-[(1S,2R,4R)-2-Benzenesulfonylmethyl-4-(isopropyl-
methyl-amino)-cyclohexyl]-2-oxo-pyrrolidin-3-yl)-3-
(3-trifluoromethyl-phenyl)-urea;

N-[(3S)-1-((1S,2R,4R)-2-Benzenesulfonylmethyl-4-
isopropylamino-cyclohexyl)-2-oxo-pyrrolidin-3-yl]-3-
trifluoromethyl-benzamide;

30 N-((3S)-1-[(1S,2R,4R)-4-(Allyl-isopropyl-amino)-2-
benzenesulfonylmethyl-cyclohexyl]-2-oxo-pyrrolidin-
3-yl)-3-trifluoromethyl-benzamide;

- 1-((1S,2R)-2-Benzenesulfonylmethyl-4-isopropylamino-cyclohexyl)-2-oxo-pyrrolidine-3-carboxylic acid (3-trifluoromethyl-phenyl)-amide;
- 5 1-((1S,2R)-2-Benzenesulfonylmethyl-4-isopropylamino-cyclohexyl)-2-oxo-pyrrolidine-3-carboxylic acid (3-trifluoromethyl-phenyl)-amide;
- 10 (2-((3S)-1-[(1S,2R)-2-(4-Methylsulfanyl-benzylamino)-cyclohexyl]-2-oxo-pyrrolidin-3-ylcarbamoyl)-4-trifluoromethyl-phenyl)-carbamic acid tert-butyl ester;
- 15 N-((3S)-1-[(1S,2R,4R)-2-Benzenesulfonylmethyl-4(R)-(isopropyl-propyl-amino)-cyclohexyl]-2-oxo-pyrrolidin-3-yl)-3-trifluoromethyl-benzamide;
- 20 (±) 1-[(1S*,2R*,4R*)-4-Isopropylamino-2-(4-methylsulfanyl-benzenesulfonylmethyl)-cyclohexyl]-4-(3-trifluoromethyl-phenyl)-5,6-dihydro-1H-pyridin-2-one;
- 25 (±) 1-[(1S*,2R*,4R*)-4-Isopropylamino-2-(4-benzenesulfonylmethyl)-cyclohexyl]-4-(3-trifluoromethyl-phenyl)-5,6-dihydro-1H-pyridin-2-one;
- 30 (±) 1-[(1S*,2R*,4R*)-4-Isopropylmethylamino-2-(4-methylsulfanyl-benzenesulfonylmethyl)-cyclohexyl]-4-(3-trifluoromethyl-phenyl)-5,6-dihydro-1H-pyridin-2-one;

- (±) 1-[(1S*,2R*,4R*)-4-Amino-2-(4-methylsulfanyl-benzenesulfonylmethyl)-cyclohexyl]-4-(3-trifluoromethoxyphenyl)-5,6-dihydro-1H-pyridin-2-one;
- 5
- (±) 1-[(1S*,2R*,4R*)-4-Isopropylamino-2-(4-methylsulfanyl-benzenesulfonylmethyl)-cyclohexyl]-4-(3-trifluoromethoxyphenyl)-5,6-dihydro-1H-pyridin-2-one;
- 10
- (±) 1-[(1S*,2R*,4R*)-4-Isopropylamino-2-(4-benzenesulfonylmethyl)-cyclohexyl]-4-(3-trifluoromethyl-phenyl)-piperidin-2-one;
- 15
- (S)-3-(3-(trifluoromethyl)benzylamino)-1-((1S,2R,4R)-4-(isopropyl(methyl)amino)-2-(4-(methylthio)phenylsulfonylmethyl)cyclohexyl)pyrrolidin-2-one;
- 20
- 3(R)-(3-(trifluoromethyl)phenethyl)-1-((1S,2R,4R/S)-4-(isopropylamino)-2-(phenylsulfonylmethyl)cyclohexyl)pyrrolidin-2-one trifluoroacetate
- 25
- 3(S)-(3-(Trifluoromethyl)phenethyl)-1-((1S,2R,4R/S)-4-(isopropylamino)-2-(phenylsulfonylmethyl)cyclohexyl)pyrrolidin-2-one trifluoroacetate
- 30
- N-((S)-1-((1S,2R,4R)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-2-oxoazepan-3-yl)-3-(trifluoromethyl)benzamide;

N-((S)-1-((1S,2R,4R)-4-(dimethylamino)-2-(phenylsulfonylmethyl)cyclohexyl)-2-oxopiperidin-3-yl)-3-(trifluoromethyl)benzamide;

5 (R*)-1-((1S*,2R*,4R*)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-3-((2-(3-(trifluoromethyl)phenyl)-1,3-dioxolan-2-yl)methyl)pyrrolidin-2-one;

10 (S*)-1-((1S*,2R*,4R*)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-3-((2-(3-(trifluoromethyl)phenyl)-1,3-dioxolan-2-yl)methyl)pyrrolidin-2-one;

15 (S*)-3-(2-oxo-2-(3-(trifluoromethyl)phenyl)ethyl)-1-((1S*,2R*,4R*)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)pyrrolidin-2-one;

(R*)-3-(2-oxo-2-(3-(trifluoromethyl)phenyl)ethyl)-1-
20 ((1S*,2R*,4R*)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)pyrrolidin-2-one;

(R*)-3-(2-hydroxy-2-(3-(trifluoromethyl)phenyl)ethyl)-1-
25 ((1S*,2R*,4R*)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)pyrrolidin-2-one;

(S*)-3-(2-hydroxy-2-(3-(trifluoromethyl)phenyl)ethyl)-1-
((1S*,2R*,4R*)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)pyrrolidin-2-one;

30

((S*)-1-((1S*,2R*,4R*)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-3-(-2-(methoxyimino)-2-(3-(trifluoromethyl)phenyl)ethyl)pyrrolidin-2-one;

35

((R*)-1-((1S*,2R*,4R*)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-3-(-2-(methoxyimino)-2-(3-(trifluoromethyl)phenyl)ethyl)pyrrolidin-2-one;

5

1-((1S*,2R*,4R*)-4-(amino)-2-(phenylsulfonylmethyl)cyclohexyl)-3-(7-(trifluoromethyl)-1H-benzo[d]imidazol-2-yl)pyrrolidin-2-one;

10

1-((1S*,2R*,4R*)-4-(isopropylamino)-2-(phenylsulfonylmethyl)cyclohexyl)-3-(7-(trifluoromethyl)-1H-benzo[d]imidazol-2-yl)pyrrolidin-2-one;

15

1-((1S*,2R*,4R*)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-3-(7-(trifluoromethyl)-1H-benzo[d]imidazol-2-yl)pyrrolidin-2-one;

20

1-((1S*,2R*,4R*)-4-(isopropyl(ethyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-3-(7-(trifluoromethyl)-1H-benzo[d]imidazol-2-yl)pyrrolidin-2-one;

25

1-((1S*,2R*,4R*)-4-(Diethylamino)-2-(phenylsulfonylmethyl)cyclohexyl)-3-(7-(trifluoromethyl)-1H-benzo[d]imidazol-2-yl)pyrrolidin-2-one;

30

1-((1S,2R,4R)-4-(Isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-3-(naphthalen-1-ylamino)pyrrolidin-2-one;

- 3-(Benzo[b]thiophen-3-ylamino)-1-((1S,2R,4R)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)pyrrolidin-2-one;
- 5 (S)-3-(6-chloroquinazolin-4-ylamino)-1-((1S,2R,4R)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)pyrrolidin-2-one;
- (S)-3-(6,8-dichloroquinazolin-4-ylamino)-1-((1S,2R,4R)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)pyrrolidin-2-one;
- 10
- 3,5-Dichloro-N-((S)-1-((1S,2R,4R)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-2-oxopyrrolidin-3-yl)benzamide;
- 15
- N-((S)-1-((1S,2R,4R)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-2-oxopyrrolidin-3-yl)-3-(trifluoromethoxy)benzamide;
- 20
- 3-((E)-3(R*)-(trifluoromethyl)styryl)-1-((1S*,2R*,4R*)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)pyrrolidin-2-one;
- 25
- 1-((1S*,2R*,4R*)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-3(R*)-((E/Z)-2-(3-(trifluoromethyl)phenyl)prop-1-enyl)pyrrolidin-2-one;
- 30
- N-(1-((1S,2R,4R)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-2-oxopyrrolidin-3(R)-yl)benzamide;

N-((S)-1-((1S,2R,4R)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-2-oxopyrrolidin-3-yl)-3,5-bis(trifluoromethyl)benzamide;

5 2-Amino-N-(1-((1S,2R,4R)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-2-oxopyrrolidin-3(R)-yl)-5-(trifluoromethoxy)benzamide;

10 (R)-1-((1S,2R,4R)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-3-(6-(trifluoromethyl)quinolin-4-ylamino)pyrrolidin-2-one;

15 (S)-1-((1S,2R,4R)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-3-(6-(trifluoromethyl)quinolin-4-ylamino)pyrrolidin-2-one;

20 (R)-1-((1S,2R,4R)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-3-(7-(trifluoromethyl)quinolin-4-ylamino)pyrrolidin-2-one;

25 (S)-1-((1S,2R,4R)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-3-(7-(trifluoromethyl)quinolin-4-ylamino)pyrrolidin-2-one;

30 3-(2-(Phenyl)phenylamino)-1-((1S,2R,4R)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)pyrrolidin-2-one;

- 3-(3,5-Bis(trifluoromethyl)phenylamino)-1-((1S,2R,4R)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)pyrrolidin-2-one;
- 5 1-((1S,2R,4R)-4-(Isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-3-(2-(trifluoromethyl)phenylamino)pyrrolidin-2-one;
- 10 1-((1S,2R,4R)-4-(Isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-3-(2-methoxyphenylamino)pyrrolidin-2-one;
- 15 1-((1S,2R,4R)-4-(Isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-3-(3-(trifluoromethyl)phenylamino)pyrrolidin-2-one;
- 20 1-((1S,2R,4R)-4-(Isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-3-(4-(trifluoromethyl)phenylamino)pyrrolidin-2-one;
- 3-Chloro-N-((S)-1-((1S,2R,4R)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-2-oxopyrrolidin-3-yl)benzamide;
- 25 3-Fluoro-N-((S)-1-((1S,2R,4R)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-2-oxopyrrolidin-3-yl)-5-(trifluoromethyl)benzamide;
- 30 tert-Butyl (1R,3R,4S)-4-((S)-2-oxo-3-(3-(trifluoromethyl)benzamido)pyrrolidin-1-yl)-3-(phenylsulfonylmethyl)cyclohexylcarbamate;

- N-((S)-2-Oxo-1-((1S,2R,4R)-4-(phenylamino)-2-(phenylsulfonylmethyl)cyclohexyl)pyrrolidin-3-yl)-3-(trifluoromethyl)benzamide;
- 5 N-(2-Oxo-1-((1S,2R,4R)-2-(phenylsulfonylmethyl)-4-(pyridin-4-ylamino)cyclohexyl)pyrrolidin-3-yl)-3-(trifluoromethyl)benzamide;
- 10 N-(2-Oxo-1-((1S,2R,4R)-2-(phenylsulfonylmethyl)-4-(thiazol-2-ylamino)cyclohexyl)pyrrolidin-3-yl)-3-(trifluoromethyl)benzamide;
- 15 Methyl (1R,3R,4S)-4-((S)-2-oxo-3-(3-(trifluoromethyl)benzamido)pyrrolidin-1-yl)-3-(phenylsulfonylmethyl)cyclohexylcarbamate;
- 20 N-((S)-1-((1S,2R,4R)-4-Formamido-2-(phenylsulfonylmethyl)cyclohexyl)-2-oxopyrrolidin-3-yl)-3-(trifluoromethyl)benzamide;
- 1-((1R,3R,4S)-4-((S)-2-Oxo-3-(3-(trifluoromethyl)benzamido)pyrrolidin-1-yl)-3-(phenylsulfonylmethyl)cyclohexyl)urea;
- 25 1-Methyl-3-((1R,3R,4S)-4-((S)-2-oxo-3-(3-(trifluoromethyl)benzamido)pyrrolidin-1-yl)-3-(phenylsulfonylmethyl)cyclohexyl)urea;
- 30 N-((S)-2-Oxo-1-((1S,2R,4R)-4-(2-oxopyrrolidin-1-yl)-2-(phenylsulfonylmethyl)cyclohexyl)pyrrolidin-3-yl)-3-(trifluoromethyl)benzamide;

- N-((S)-1-((1S,2R,4R)-4-(1,1-dioxido-isothiazolidin-2-yl)-2-(phenylsulfonylmethyl)cyclohexyl)-2-oxopyrrolidin-3-yl)-3-(trifluoromethyl)benzamide;
- 5 N-((S)-1-((1S,2R,4R)-2-((4-Chlorophenylsulfonyl)methyl)-4-(isopropyl(methyl)amino)cyclohexyl)-2-oxopyrrolidin-3-yl)-3-fluoro-5-(trifluoromethyl)benzamide;
- 10 3-Chloro-N-((S)-1-((1S,2R,4R)-2-((4-chlorophenylsulfonyl)methyl)-4-(isopropyl(methyl)amino)cyclohexyl)-2-oxopyrrolidin-3-yl)benzamide;
- 15 N-((S)-1-((1S,2R,4R)-2-((4-chlorophenylsulfonyl)methyl)-4-(isopropyl(methyl)amino)cyclohexyl)-2-oxopyrrolidin-3-yl)-3,5-bis(trifluoromethyl)benzamide;
- 20 tert-Butyl 2-(((S)-1-((1S,2R,4R)-2-((4-chlorophenylsulfonyl)methyl)-4-(isopropyl(methyl)amino)cyclohexyl)-2-oxopyrrolidin-3-yl)carbamoyl)-4-(trifluoromethoxy)phenylcarbamate;
- 25 2-Amino-N-((S)-1-((1S,2R,4R)-2-((4-chlorophenylsulfonyl)methyl)-4-(isopropyl(methyl)amino)cyclohexyl)-2-oxopyrrolidin-3-yl)-5-(trifluoromethoxy)benzamide;
- 30 N-((S)-1-((1S,2R,4R)-2-((4-Chlorophenylsulfonyl)methyl)-4-(isopropyl(methyl)amino)cyclohexyl)-2-oxopyrrolidin-3-yl)-3-(trifluoromethoxy)benzamide;

- N-((S)-1-((1S,2R,4R)-2-((4-Chlorophenylsulfonyl)methyl)-4-(isopropyl(methyl)amino)cyclohexyl)-2-oxopyrrolidin-3-yl)-3-(trifluoromethyl)benzamide;
- 5 3,5-Dichloro-N-((S)-1-((1S,2R,4R)-2-((4-chlorophenylsulfonyl)methyl)-4-(isopropyl(methyl)amino)cyclohexyl)-2-oxopyrrolidin-3-yl)benzamide;
- 10 3-Chloro-N-((S)-1-((1S,2R,4R)-2-((4-chlorophenylsulfonyl)methyl)-4-(isopropyl(methyl)amino)cyclohexyl)-2-oxopyrrolidin-3-yl)benzamide N-Oxide;
- 15 N-((S)-1-((1S,2R,4R)-2-((4-Chlorophenylsulfonyl)methyl)-4-(isopropyl(methyl)amino)cyclohexyl)-2-oxopyrrolidin-3-yl)-3-(trifluoromethyl)benzamide N-Oxide;
- 20 N-((S)-1-((1S,2R,4R)-2-((4-Chlorophenylsulfonyl)methyl)-4-(isopropyl(methyl)amino)cyclohexyl)-2-oxopyrrolidin-3-yl)-3-fluoro-5-(trifluoromethyl)benzamide N-Oxide;
- 25 N-((S)-1-((1S,2R,4R)-4-(Isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-2-oxopyrrolidin-3-yl)-3-(trifluoromethyl)benzamide N-Oxide;
- 30 N-((S)-1-((1S,2R,4R)-4-(isopropyl(methyl)amino)-2-(4-isopropylphenylsulfonyl)methyl)cyclohexyl)-2-oxopyrrolidin-3-yl)-3-(trifluoromethyl)benzamide;

- N-((S)-1-((1S,2R,4R)-4-(isopropyl(methyl)amino)-2-(o-
tolylsulfonylmethyl)cyclohexyl)-2-oxopyrrolidin-3-
yl)-3-(trifluoromethyl)benzamide;
- 5 N-((S)-1-((1S,2R,4R)-2-((4-Fluorophenylsulfonyl)methyl)-
4-(isopropyl(methyl)amino)cyclohexyl)-2-
oxopyrrolidin-3-yl)-3-(trifluoromethyl)benzamide;
- 10 3-Chloro-N-((S)-1-((1S,2R,4R)-4-(isopropyl(methyl)amino)-
2-(tosylmethyl)cyclohexyl)-2-oxopyrrolidin-3-
yl)benzamide;
- 15 2-Amino-N-((S)-1-((1S,2R,4R)-4-(isopropyl(methyl)amino)-
2-(tosylmethyl)cyclohexyl)-2-oxopyrrolidin-3-yl)-5-
(trifluoromethoxy)benzamidemide;
- 20 1-[(1S, 2R, 4R)-(4-Amino-2-benzenesulfonyl-
methylcyclohexyl)-4-(3-trifluoromethylphenyl)]-5,6-
dihydro-1H-pyridin-2-one;
- 1-([(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-
isopropylamino-cyclohexyl)-4-(3-
trifluoromethylphenyl)]-5,6-dihydro-1H-pyridin-2-one;
- 25 1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-
methyl-amino)cyclohexyl]-4-(3-trifluoromethyl-
phenyl)-5,6-dihydro-1H-pyridin-2-one;
- 30 1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-
ethyl-amino)cyclohexyl]-4-(3-trifluoromethyl-
phenyl)-5,6-dihydro-1H-pyridin-2-one;
- 1-[1S, 2R, 4R)-2-Benzenesulfonylmethyl-4-(isopropyl-
methyl-amino)-cyclohexyl]-(3S)-3-(6-chloro-2-

trifluoromethyl-quinazolin-4-ylamino)-pyrrolidin-2-one;

1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-
5 methyl-amino)-cyclohexyl]-(3S)-3-(7-chloro-
quinazolin-4-ylamino)-pyrrolidin-2-one;

1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-
methyl-amino)-cyclohexyl]-(3S)-3-(2,6-dichloro-
10 quinazolin-4-ylamino)-pyrrolidin-2-one;

1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-
methyl-amino)-cyclohexyl]-(3S)-3-(6-chloro-2-
dimethylamino-quinazolin-4-ylamino)-pyrrolidin-2-
15 one;

1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-
methyl-amino)-cyclohexyl]-(3S)-3-(6-chloro-2-
hydroxy-quinazolin-4-ylamino)-pyrrolidin-2-one;
20

1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-
methyl-amino)-cyclohexyl]-(3S)-3-(6-trifluoromethyl-
quinazolin-4-ylamino)-pyrrolidin-2-one;

25 1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-
methyl-amino)-cyclohexyl]-(3S)-3-(6-tert-butyl-
thieno[3,2-d]pyrimidin-4-ylamino)-pyrrolidin-2-one;

1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-
30 methyl-amino)-cyclohexyl]-(3S)-3-(6-tert-butyl-2-
trifluoromethyl-thieno[3,2-d]pyrimidin-4-ylamino)-
pyrrolidin-2-one;

1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-methyl-amino)-cyclohexyl]-(3S)-3-(6-tert-butyl-pyrrolo[2,1-f][1,2,4]triazin-4-ylamino)-pyrrolidin-2-one;

5

(3S)-3-(6-Adamantan-1-yl-pyrrolo[2,1-f][1,2,4]triazin-4-ylamino)-1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-methyl-amino)-cyclohexyl]-pyrrolidin-2-one;

10

3-Methyl-2-phenyl-3H-imidazole-4-carboxylic acid {(3S)-1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-methyl-amino)-cyclohexyl]-2-oxo-pyrrolidin-3-yl}-amide;

15

1-Methyl-2-phenyl-1H-imidazole-4-carboxylic acid {(3S)-1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-methyl-amino)-cyclohexyl]-2-oxo-pyrrolidin-3-yl}-amide;

20

3-Benzyl-2-phenyl-3H-imidazole-4-carboxylic acid {(3S)-1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-methyl-amino)-cyclohexyl]-2-oxo-pyrrolidin-3-yl}-amide;

25

1-Benzyl-2-phenyl-1H-imidazole-4-carboxylic acid {(3S)-1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-methyl-amino)-cyclohexyl]-2-oxo-pyrrolidin-3-yl}-amide;

30

2-Phenyl-3H-imidazole-4-carboxylic acid {(3S)-1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-methyl-amino)-cyclohexyl]-2-oxo-pyrrolidin-3-yl}-amide;

Preparation of 1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-methyl-amino)-cyclohexyl]-(3S)-3-(6,7-dimethoxy-quinazolin-4-ylamino)-pyrrolidin-2-one;

5

1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-methyl-amino)-cyclohexyl]-(3S)-3-(6-fluoro-quinazolin-4-ylamino)-pyrrolidin-2-one;

10 1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-methyl-amino)-cyclohexyl]-(3S)-3-(6-methyl-quinazolin-4-ylamino)-pyrrolidin-2-one;

15 1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-methyl-amino)-cyclohexyl]-(3S)-3-(6-phenyl-thieno[2,3-d]pyrimidin-4-ylamino)-pyrrolidin-2-one;

20 1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-methyl-amino)-cyclohexyl]-(3S)-3-(6-chloro-2-propyl-pyrido[2,3-d]pyrimidin-4-ylamino)-pyrrolidin-2-one;

25 1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-methyl-amino)-cyclohexyl]-(3S)-3-(6-chloro-2-isopropyl-quinazolin-4-ylamino)-pyrrolidin-2-one;

1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-methyl-amino)-cyclohexyl]-(3S)-3-(2-tert-butyl-6-chloro-quinazolin-4-ylamino)-pyrrolidin-2-one;

30 1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-methyl-amino)-cyclohexyl]-(3S)-3-(6-chloro-2-methyl-quinazolin-4-ylamino)-pyrrolidin-2-one;

- 1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-methyl-amino)-cyclohexyl]-(3S)-3-(6-chloro-2-ethyl-quinazolin-4-ylamino)-pyrrolidin-2-one;
- 5 N-[(3S)-1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-methyl-amino)-cyclohexyl]-2,5-dioxo-pyrrolidin-3-yl]-3-trifluoromethyl-benzamide;
- 10 N-[(3S)-1-[-(1S, 2R, 4R)-2-Benzenesulfonylmethyl-4-(isopropyl-methyl-amino)-cyclohexyl]-2-oxo-pyrrolidin-3-yl]-4-adamantan-1-yl-1H-pyrrole-2-carboxamide;
- 15 N-[(3S)-1-[-(1S, 2R, 4R)-2-Benzenesulfonylmethyl-4-(isopropyl-methyl-amino)-cyclohexyl]-2-oxo-pyrrolidin-3-yl]-4-adamantan-1-yl-1-methyl-1H-pyrrole-2-carboxamide;
- 20 1-[(1S, 2R, 4R)-2-Benzenesulfonylmethyl-4-(isopropyl-methyl-amino)-cyclohexyl]-(3S)-3-(6-tert-butyl-pyrimido[5,4-d]pyrimidin-4-ylamino)-pyrrolidin-2-one;
- 25 5-Bromo-2-tert-butyl-pyrimidine-4-carboxylic acid {(3S)-1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-methyl-amino)-cyclohexyl]-2-oxo-pyrrolidin-3-yl}-amide;
- 30 2-tert-Butyl-pyrimidine-4-carboxylic acid {(3S*)-1-[(1S*, 2R*, 4R*)-2-benzenesulfonylmethyl-4-(isopropyl-methyl-amino)-cyclohexyl]-2-oxo-pyrrolidin-3-yl}-amide;

2-tert-Butyl-5-phenyl-pyrimidine-4-carboxylic acid {(3S)-
1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-
(isopropyl-methyl-amino)-cyclohexyl]-2-oxo-
pyrrolidin-3-yl}-amide;

5

N-[(3S)-1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-
(isopropyl-methyl-amino)-cyclohexyl]-2-oxo-
pyrrolidin-3-yl]-3-tert-butyl-benzamide;

10 N-[(3S)-1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-
(isopropyl-methyl-amino)-cyclohexyl]-2-oxo-
pyrrolidin-3-yl]-3-bromo-5-tert-butyl-benzamide;

15 1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-
methyl-amino)-cyclohexyl]-(3S)-3-(pyrido[2,3-
d]pyrimidin-4-ylamino)-pyrrolidin-2-one;

20 1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-
methyl-amino)-cyclohexyl]-(3S)-3-(6-chloro-
pyrido[2,3-d]pyrimidin-4-ylamino)-pyrrolidin-2-one;

25 1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-
methyl-amino)-cyclohexyl]-(3S)-3-(6-chloro-2-
trifluoromethyl-pyrido[2,3-d]pyrimidin-4-ylamino)-
pyrrolidin-2-one;

30 1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-
methyl-amino)-cyclohexyl]-(3S)-3-(6-
trifluoromethoxy-pyrido[2,3-d]pyrimidin-4-ylamino)-
pyrrolidin-2-one;

- 1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-methyl-amino)-cyclohexyl]-(3S)-3-(6-chloro-2-methylamino-quinazolin-4-ylamino)-pyrrolidin-2-one;
- 5 (3S)-3-(6-Fluoro-quinazolin-4-ylamino)-1-[(1S, 2R, 4R)-4-(isopropyl-methyl-amino)-2-(toluene-4-sulfonylmethyl)-cyclohexyl]-pyrrolidin-2-one;
- 10 N-{1-[(1S, 2R, 4R)-2-benzenesulfonylmethyl-4-(isopropyl-methyl-amino)-cyclohexyl]-2-oxo-pyrrolidin-(3S)-3-yl}-2-chloro-5-trifluoromethyl-benzamide;
- 15 (S)-3-(6-Bromoquinazolin-4-ylamino)-1-((1S, 2R, 4R)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)pyrrolidin-2-one;
- 20 (S)-3-(6,7-Difluoroquinazolin-4-ylamino)-1-((1S, 2R, 4R)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)pyrrolidin-2-one;
- 25 ((S)-1-((1S, 2R, 4R)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-3-(quinazolin-4-ylamino)pyrrolidin-2-one;
- 30 3-Phenyl-N-((S)-1-((1S, 2R, 4R)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-2-oxopyrrolidin-3-yl)benzamide;

(S)-3-(6-Iodoquinazolin-4-ylamino)-1-((1S,2R,4R)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)pyrrolidin-2-one;

5 3-Tert-butyl-4-hydroxy-N-((S)-1-((1S,2R,4R)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-2-oxopyrrolidin-3-yl)benzamide;

10 3-Amino-5-tert-butyl-N-((S)-1-((1S,2R,4R)-4-(isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-2-oxopyrrolidin-3-yl)thiophene-2-carboxamide;

15 N-((S)-1-((1S,2R,4R)-4-(Isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-2-oxopyrrolidin-3-yl)-2-methyl-5-phenylfuran-3-carboxamide;

20 N-((S)-1-((1S,2R,4R)-4-(Isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-2-oxopyrrolidin-3-yl)-5-nitrofuran-2-carboxamide; and

25 N-((S)-1-((1S,2R,4R)-4-(Isopropyl(methyl)amino)-2-(phenylsulfonylmethyl)cyclohexyl)-2-oxopyrrolidin-3-yl)-4-phenylthiophene-2-carboxamide.

19. A pharmaceutical composition, comprising a pharmaceutically acceptable carrier and a therapeutically effective amount of a compound of claim 1.

30

20. A method for modulation of chemokine receptor activity comprising administering to a patient in need thereof a therapeutically effective amount of a compound of claim 1.

21. A method for modulation of MCP-1, MCP-2, MCP-3
and MCP-4, and MCP-5 activity that is mediated by the
CCR2 receptor comprising administering to a patient in
5 need thereof a therapeutically effective amount of a
compound of claim 1.

22. A method for modulation of MCP-1 activity
comprising administering to a patient in need thereof a
10 therapeutically effective amount of a compound of claim
1.

23. A method for treating disorders, comprising
administering to a patient in need thereof a
15 therapeutically effective amount of a compound of claim
1, said disorders being selected from osteoarthritis,
aneurism, fever, cardiovascular effects, Crohn's disease,
congestive heart failure, autoimmune diseases, HIV-
infection, HIV-associated dementia, psoriasis, idiopathic
20 pulmonary fibrosis, transplant arteriosclerosis,
physically- or chemically-induced brain trauma,
inflammatory bowel disease, alveolitis, colitis, systemic
lupus erythematosus, nephrotoxic serum nephritis,
glomerularnephritis, asthma, multiple sclerosis,
25 artherosclerosis, rheumatoid arthritis, restinosis, organ
transplantation, and cancer.

24. The method for treating disorders, of claim 23,
wherein said disorders being selected from psoriasis,
30 idiopathic pulmonary fibrosis, transplant
arteriosclerosis, physically- or chemically-induced brain
trauma, inflammatory bowel disease, alveolitis, colitis,
systemic lupus erythematosus, nephrotoxic serum
nephritis, glomerularnephritis, asthma, multiple

sclerosis, arteriosclerosis, rheumatoid arthritis
restinosis, organ transplantation, and cancer.

25. The method for treating disorders, of claim 24,
5 wherein said disorders being selected from alveolitis,
colitis, systemic lupus erythematosus, nephrotoxic serum
nephritis, glomerularnephritis, asthma, multiple
sclerosis, arteriosclerosis, rheumatoid arthritis
restinosis, organ transplantation, and cancer.

10

26. The method for treating disorders, of claim 25,
wherein said disorders being selected from asthma,
multiple sclerosis, arteriosclerosis, and rheumatoid
arthritis.

15

27. A method for treating inflammatory diseases,
comprising administering to a patient in need thereof a
therapeutically effective amount of a compound of claim
1.

20

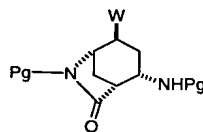
28. A method for modulation of CCR2 activity
comprising administering to a patient in need thereof a
therapeutically effective amount of a compound of claim
1.

25

29. The method for treating disorders, of claim 25,
wherein said disorders being selected from restinosis,
organ transplantation, and cancer.

30

30. A compound of Formula (II)



(II)

wherein

W is selected from H, I, and Br;

5

Pg, at each occurrence, is independently selected from an amine protecting group.

31. The compound of claim 30, wherein

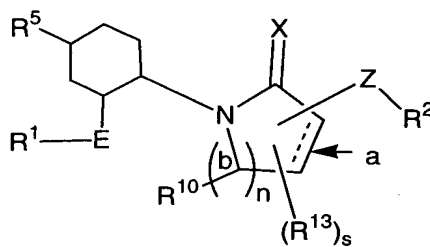
10

W is selected from H, I, and Br; and

Pg, at each occurrence, is independently selected from benzyloxycarbonyl (Cbz) and tert-butyloxycarbonyl (Boc).

15

32. A process for preparing a compound of Formula (Ia)



(Ia)

20 or salt or stereoisomer thereof: wherein

E is selected from -S(O)_pCHRe-, -CHReNRe-, -C(O)-NRe-,
-NReC(O)NRe-, -SO₂-NRe-, and -NReSO₂NRe-;

25 Re is independently selected from H and C₁₋₃ alkyl;

X is selected from O or S;

Z is selected from a bond, $-\text{NR}^8\text{C}(\text{O})-$, $-\text{NR}^8\text{C}(\text{S})-$,
 $-\text{NR}^8\text{C}(\text{O})\text{NH}-$, $-\text{NR}^8\text{C}(\text{S})\text{NH}-$, $-\text{NR}^8\text{SO}_2-$, $-\text{NR}^8\text{SO}_2\text{NH}-$,
 $-\text{C}(\text{O})\text{NR}^8-$, $-\text{OC}(\text{O})\text{NR}^8-$, $-\text{NR}^8\text{C}(\text{O})\text{O}-$, $-(\text{CR}^{15}\text{R}^{15})_1-$,
 $-\text{CR}^{14}=\text{CR}^{14}-$, $-\text{CR}^{15}\text{R}^{15}\text{C}(\text{O})-$, $-\text{C}(\text{O})\text{CR}^{15}\text{R}^{15}-$,
5 $\text{CR}^{15}\text{R}^{15}\text{C}(=\text{N}-\text{OR}^{16})-$, $-\text{O}-\text{CR}^{14}\text{R}^{14}-$, $-\text{CR}^{14}\text{R}^{14}-\text{O}-$, $-\text{O}-$,
 $-\text{NR}^9-$, $-\text{NR}^9-\text{CR}^{14}\text{R}^{14}-$, $-\text{CR}^{14}\text{R}^{14}-\text{NR}^9-$, $-\text{S}(\text{O})_{\text{p}}-$, $-\text{S}(\text{O})_{\text{p}}-$
 $\text{CR}^{14}\text{R}^{14}-$, $-\text{CR}^{14}\text{R}^{14}-\text{S}(\text{O})_{\text{p}}-$, and $-\text{S}(\text{O})_{\text{p}}-\text{NR}^9-$;

wherein neither Z nor R^{13} are connected to a carbon atom
10 labeled (b);

bond (a) is a single or double bond;

alternatively, when n is equal to 2, two atoms labeled
15 (b) may join through a double bond;

R^1 is selected from a C_{6-10} aryl group substituted with
0-5 R^6 and a 5-10 membered heteroaryl system
containing 1-4 heteroatoms selected from N, O, and
20 S, substituted with 0-3 R^6 ;

R^2 is selected from a C_{6-10} aryl group substituted with
0-5 R^7 and a 5-10 membered heteroaryl system
containing 1-4 heteroatoms selected from N, O, and
25 S, substituted with 0-3 R^7 ;

R^5 , at each occurrence, is independently selected from H,
 $(\text{CRR})_{\text{r}}\text{OH}$, $(\text{CRR})_{\text{r}}\text{SH}$, $(\text{CRR})_{\text{r}}\text{OR}^{5\text{d}}$, $(\text{CRR})_{\text{r}}\text{SR}^{5\text{d}}$,
 $(\text{CRR})_{\text{r}}\text{NR}^{5\text{a}}\text{R}^{5\text{a}}$, $(\text{CRR})_{\text{r}}\text{N}(\rightarrow\text{O})\text{R}^{5\text{a}}\text{R}^{5\text{a}}$, $(\text{CRR})_{\text{r}}\text{NR}^{5\text{a}}\text{C}(\text{O})\text{R}^{5\text{b}}$,
30 $(\text{CRR})_{\text{r}}\text{OC}(\text{O})\text{NR}^{5\text{a}}\text{R}^{5\text{a}}$, $(\text{CRR})_{\text{r}}\text{NR}^{5\text{a}}\text{C}(\text{O})\text{OR}^{5\text{d}}$,
 $(\text{CRR})_{\text{r}}\text{NR}^{5\text{a}}\text{C}(\text{O})\text{NR}^{5\text{a}}\text{R}^{5\text{a}}$, $(\text{CRR})_{\text{r}}\text{NR}^{5\text{a}}\text{C}(\text{O})\text{H}$,
 $(\text{CRR})_{\text{r}}\text{OC}(\text{O})\text{R}^{5\text{b}}$, $(\text{CRR})_{\text{r}}\text{S}(\text{O})_{\text{p}}\text{R}^{5\text{b}}$, $(\text{CRR})_{\text{r}}\text{S}(\text{O})_2\text{NR}^{5\text{a}}\text{R}^{5\text{a}}$,
 $(\text{CRR})_{\text{r}}\text{NR}^{5\text{a}}\text{S}(\text{O})_2\text{R}^{5\text{b}}$, $(\text{CRR})_{\text{r}}\text{NR}^{5\text{a}}\text{S}(\text{O})_2\text{NR}^{5\text{a}}\text{R}^{5\text{a}}$, and a
 $(\text{CRR})_{\text{r}}-5-10$ membered heterocyclic system containing

1-4 heteroatoms selected from N, O, and S,
substituted with 0-2 R^{5c};

5 R^{5a}, at each occurrence, is independently selected from H,
methyl substituted with 0-1 R^{5g}, C₂₋₆ alkyl
substituted with 0-2 R^{5e}, C₃₋₈ alkenyl substituted
with 0-2 R^{5e}, C₃₋₈ alkynyl substituted with 0-2 R^{5e},
a (CH₂)_r-C₃₋₁₀ carbocyclic residue substituted with
0-5 R^{5e}, and a (CH₂)_r-5-10 membered heterocyclic
10 system containing 1-4 heteroatoms selected from N,
O, and S, substituted with 0-3 R^{5e};

R^{5b}, at each occurrence, is selected from C₁₋₆ alkyl
substituted with 0-3 R^{5e}, C₃₋₈ alkenyl substituted
15 with 0-2 R^{5e}, C₃₋₈ alkynyl substituted with 0-2 R^{5e},
a (CH₂)_r-C₃₋₆ carbocyclic residue substituted with
0-2 R^{5e}, and a (CH₂)_r-5-6 membered heterocyclic
system containing 1-4 heteroatoms selected from N,
O, and S, substituted with 0-3 R^{5e};

20 R^{5c}, at each occurrence, is selected from C₁₋₆ alkyl, C₂₋₈
alkenyl, C₂₋₈ alkynyl, (CH₂)_r-C₃₋₆ cycloalkyl, Cl, Br,
I, F, (CF₂)_rCF₃, NO₂, CN, (CH₂)_rNR^{5f}R^{5f}, (CH₂)_rOH,
(CH₂)_rOC₁₋₄ alkyl, (CH₂)_rSC₁₋₄ alkyl, (CH₂)_rC(O)OH,
25 (CH₂)_rC(O)R^{5b}, (CH₂)_rC(O)NR^{5f}R^{5f}, (CH₂)_rOC(O)NR^{5f}R^{5f},
(CH₂)_rNR^{5f}C(O)R^{5b}, (CH₂)_rC(O)OC₁₋₄ alkyl,
(CH₂)_rNR^{5f}C(O)OC₁₋₄ alkyl, (CH₂)_rOC(O)R^{5b},
(CH₂)_rC(=NR^{5f})NR^{5f}R^{5f}, (CH₂)_rS(O)_pR^{5b},
(CH₂)_rNHC(=NR^{5f})NR^{5f}R^{5f}, (CH₂)_rS(O)₂NR^{5f}R^{5f},
30 (CH₂)_rNR^{5f}S(O)₂R^{5b}, and (CH₂)_rphenyl substituted with
0-3 R^{5e};

R^{5d}, at each occurrence, is selected from methyl, CF₃,
C₂₋₆ alkyl substituted with 0-2 R^{5e}, C₃₋₈ alkenyl

substituted with 0-2 R^{5e} , C_{3-8} alkynyl substituted with 0-2 R^{5e} , and a C_{3-10} carbocyclic residue substituted with 0-3 R^{5e} ;

- 5 R^{5e} , at each occurrence, is selected from C_{1-6} alkyl, C_{2-8} alkenyl, C_{2-8} alkynyl, C_{3-6} cycloalkyl, Cl, F, Br, I, CN, NO_2 , $(CF_2)_rCF_3$, $(CH_2)_rOC_{1-5}$ alkyl, OH, SH, $(CH_2)_rSC_{1-5}$ alkyl, $(CH_2)_rNR^{5f}R^{5f}$, and $(CH_2)_rphenyl$;
- 10 R^{5f} , at each occurrence, is selected from H, C_{1-6} alkyl, and C_{3-6} cycloalkyl;

R^{5g} is independently selected from $-C(O)R^{5b}$, $-C(O)OR^{5d}$, $-C(O)NR^{5f}R^{5f}$, $-CN$, and $(CH_2)_rphenyl$;

15

R, at each occurrence, is selected from H, C_{1-6} alkyl substituted with R^{5e} , C_{2-8} alkenyl, C_{2-8} alkynyl, $(CH_2)_rC_{3-6}$ cycloalkyl, and $(CH_2)_rphenyl$ substituted with R^{5e} ;

20

- R^6 , at each occurrence, is selected from C_{1-8} alkyl, C_{2-8} alkenyl, C_{2-8} alkynyl, $(CH_2)_rC_{3-6}$ cycloalkyl, Cl, Br, I, F, NO_2 , CN, $(CR'R')_rNR^{6a}R^{6a}$, $(CR'R')_rOH$, $(CR'R')_rO(CR'R')_rR^{6d}$, $(CR'R')_rSH$, $(CR'R')_rC(O)H$, $(CR'R')_rS(CR'R')_rR^{6d}$, $(CR'R')_rSC(O)(CR'R')_rR^{6b}$, $(CR'R')_rC(O)OH$, $(CR'R')_rC(O)(CR'R')_rR^{6b}$, $(CR'R')_rNR^{6a}R^{6a}$, $(CR'R')_rC(O)NR^{6a}R^{6a}$, $(CR'R')_rNR^{6f}C(O)(CR'R')_rR^{6b}$, $(CR'R')_rC(O)O(CR'R')_rR^{6d}$, $(CR'R')_rOC(O)(CR'R')_rR^{6b}$, $(CR'R')_rOC(O)NR^{6a}(CR'R')_rR^{6d}$, $(CR'R')_rNR^{6a}C(O)NR^{6a}(CR'R')_rR^{6d}$, $(CR'R')_rNR^{6a}C(S)NR^{6a}(CR'R')_rR^{6d}$, $(CR'R')_rNR^{6f}C(O)O(CR'R')_rR^{6b}$, $(CR'R')_rC(=NR^{6f})NR^{6a}R^{6a}$,
- 25
- 30

- $(\text{CR}'\text{R}')_r\text{NHC}(=\text{NR}^{6f})\text{NR}^{6f}\text{R}^{6f}$, $(\text{CR}'\text{R}')_r\text{S}(\text{O})_p(\text{CR}'\text{R}')_r\text{R}^{6b}$,
 $(\text{CR}'\text{R}')_r\text{S}(\text{O})_2\text{NR}^{6a}\text{R}^{6a}$, $(\text{CR}'\text{R}')_r\text{NR}^{6f}\text{S}(\text{O})_2\text{NR}^{6a}\text{R}^{6a}$,
 $(\text{CR}'\text{R}')_r\text{NR}^{6f}\text{S}(\text{O})_2(\text{CR}'\text{R}')_r\text{R}^{6b}$, C_{1-6} haloalkyl, C_{2-8}
 alkenyl substituted with 0-3 R' , C_{2-8} alkynyl
 5 substituted with 0-3 R' , $(\text{CR}'\text{R}')_r\text{phenyl}$ substituted
 with 0-3 R^{6e} , and a $(\text{CH}_2)_r$ -5-6 membered heterocyclic
 system containing 1-2 heteroatoms selected from N,
 O, and S, substituted with 0-2 R^{6e} ;
- 10 alternatively, two R^6 on adjacent atoms on R^1 may join to
 form a cyclic acetal;
- R^{6a} , at each occurrence, is selected from H, methyl
 substituted with 0-1 R^{6g} , C_{2-6} alkyl substituted with
 15 0-2 R^{6e} , C_{3-8} alkenyl substituted with 0-2 R^{6e} , C_{3-8}
 alkynyl substituted with 0-2 R^{6e} , a $(\text{CH}_2)_r$ - C_{3-10}
 carbocyclic residue substituted with 0-5 R^{6e} , and a
 $(\text{CH}_2)_r$ -5-10 membered heterocyclic system containing
 1-4 heteroatoms selected from N, O, and S,
 20 substituted with 0-2 R^{6e} ;
- R^{6b} , at each occurrence, is selected from H, C_{1-6} alkyl
 substituted with 0-2 R^{6e} , C_{3-8} alkenyl substituted
 with 0-2 R^{6e} , C_{3-8} alkynyl substituted with 0-2 R^{6e} ,
 25 a $(\text{CH}_2)_r\text{C}_{3-6}$ carbocyclic residue substituted with 0-3
 R^{6e} , and a $(\text{CH}_2)_r$ -5-6 membered heterocyclic system
 containing 1-4 heteroatoms selected from N, O, and
 S, substituted with 0-2 R^{6e} ;
- 30 R^{6d} , at each occurrence, is selected from C_{3-8} alkenyl
 substituted with 0-2 R^{6e} , C_{3-8} alkynyl substituted
 with 0-2 R^{6e} , methyl, CF_3 , C_{2-6} alkyl substituted
 with 0-3 R^{6e} , C_{2-4} haloalkyl, a $(\text{CH}_2)_r$ - C_{3-10}
 carbocyclic residue substituted with 0-3 R^{6e} , and a

$(\text{CH}_2)_r$ -5-6 membered heterocyclic system containing
1-4 heteroatoms selected from N, O, and S,
substituted with 0-3 R^{6e} ;

- 5 R^{6e} , at each occurrence, is selected from C_{1-6} alkyl, C_{2-8}
alkenyl, C_{2-8} alkynyl, $(\text{CH}_2)_r\text{C}_{3-6}$ cycloalkyl, Cl, F,
Br, I, CN, NO_2 , $(\text{CF}_2)_r\text{CF}_3$, $(\text{CH}_2)_r\text{OC}_{1-5}$ alkyl, OH, SH,
 $(\text{CH}_2)_r\text{SC}_{1-5}$ alkyl, $(\text{CH}_2)_r\text{NR}^{6f}\text{R}^{6f}$, and $(\text{CH}_2)_r$ phenyl;
- 10 R^{6f} , at each occurrence, is selected from H, C_{1-5} alkyl,
and C_{3-6} cycloalkyl, and phenyl;

R^{6g} is independently selected from $-\text{C}(\text{O})\text{R}^{6b}$, $-\text{C}(\text{O})\text{OR}^{6d}$,
 $-\text{C}(\text{O})\text{NR}^{6f}\text{R}^{6f}$, and $(\text{CH}_2)_r$ phenyl;

15

- R^7 , at each occurrence, is selected from C_{1-8} alkyl, C_{2-8}
alkenyl, C_{2-8} alkynyl, $(\text{CH}_2)_r\text{C}_{3-6}$ cycloalkyl, Cl, Br,
I, F, NO_2 , CN, $(\text{CR}'\text{R}')_r\text{NR}^{7a}\text{R}^{7a}$, $(\text{CR}'\text{R}')_r\text{OH}$,
 $(\text{CR}'\text{R}')_r\text{O}(\text{CR}'\text{R}')_r\text{R}^{7d}$, $(\text{CR}'\text{R}')_r\text{SH}$, $(\text{CR}'\text{R}')_r\text{C}(\text{O})\text{H}$,
20 $(\text{CR}'\text{R}')_r\text{S}(\text{CR}'\text{R}')_r\text{R}^{7d}$, $(\text{CR}'\text{R}')_r\text{C}(\text{O})\text{OH}$,
 $(\text{CR}'\text{R}')_r\text{C}(\text{O})(\text{CR}'\text{R}')_r\text{R}^{7b}$, $(\text{CR}'\text{R}')_r\text{C}(\text{O})\text{NR}^{7a}\text{R}^{7a}$,
 $(\text{CR}'\text{R}')_r\text{NR}^{7f}\text{C}(\text{O})(\text{CR}'\text{R}')_r\text{R}^{7b}$, $(\text{CR}'\text{R}')_r\text{C}(\text{O})\text{O}(\text{CR}'\text{R}')_r\text{R}^{7d}$,
 $(\text{CR}'\text{R}')_r\text{OC}(\text{O})(\text{CR}'\text{R}')_r\text{R}^{7b}$,
 $(\text{CR}'\text{R}')_r\text{OC}(\text{O})\text{NR}^{7a}(\text{CR}'\text{R}')_r\text{R}^{7a}$,
25 $(\text{CR}'\text{R}')_r\text{NR}^{7a}\text{C}(\text{O})\text{NR}^{7a}(\text{CR}'\text{R}')_r\text{R}^{7a}$,
 $(\text{CR}'\text{R}')_r\text{NR}^{7f}\text{C}(\text{O})\text{O}(\text{CR}'\text{R}')_r\text{R}^{7d}$, $(\text{CR}'\text{R}')_r\text{C}(=\text{NR}^{7f})\text{NR}^{7a}\text{R}^{7a}$,
 $(\text{CR}'\text{R}')_r\text{NHC}(=\text{NR}^{7f})\text{NR}^{7f}\text{R}^{7f}$, $(\text{CR}'\text{R}')_r\text{S}(\text{O})_p(\text{CR}'\text{R}')_r\text{R}^{7b}$,
 $(\text{CR}'\text{R}')_r\text{S}(\text{O})_2\text{NR}^{7a}\text{R}^{7a}$, $(\text{CR}'\text{R}')_r\text{NR}^{7a}\text{S}(\text{O})_2\text{NR}^{7a}\text{R}^{7a}$,
 $(\text{CR}'\text{R}')_r\text{NR}^{7f}\text{S}(\text{O})_2(\text{CR}'\text{R}')_r\text{R}^{7b}$, C_{1-6} haloalkyl, C_{2-8}
30 alkenyl substituted with 0-3 R' , C_{2-8} alkynyl
substituted with 0-3 R' , $(\text{CR}'\text{R}')_r$ C_{3-10} carbocyclic
residue and $(\text{CR}'\text{R}')_r$ phenyl substituted with 0-3 R^{7e} ;

alternatively, two R⁷ on adjacent atoms on R² may join to form a cyclic acetal;

5 R^{7a}, at each occurrence, is independently selected from H, methyl substituted with 0-1 R^{7g}, C₂₋₆ alkyl substituted with 0-2 R^{7e}, C₃₋₈ alkenyl substituted with 0-2 R^{7e}, C₃₋₈ alkynyl substituted with 0-2 R^{7e}, a (CH₂)_r-C₃₋₁₀ carbocyclic residue substituted with 0-5 R^{7e}, and a (CH₂)_r-5-10 membered heterocyclic
10 system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-2 R^{7e};

R^{7b}, at each occurrence, is selected from C₁₋₆ alkyl substituted with 0-2 R^{7e}, C₃₋₈ alkenyl substituted with 0-2 R^{7e}, C₃₋₈ alkynyl substituted with 0-2 R^{7e},
15 a (CH₂)_r-C₃₋₆ carbocyclic residue substituted with 0-3 R^{7e}, and a (CH₂)_r-5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-2 R^{7e};

20 R^{7d}, at each occurrence, is selected from C₃₋₈ alkenyl substituted with 0-2 R^{7e}, C₃₋₈ alkynyl substituted with 0-2 R^{7e}, methyl, CF₃, C₂₋₄ haloalkyl, C₂₋₆ alkyl substituted with 0-3 R^{7e}, a (CH₂)_r-C₃₋₁₀ carbocyclic
25 residue substituted with 0-3 R^{7e}, and a (CH₂)_r-5-6 membered heterocyclic system containing 1-4 heteroatoms selected from N, O, and S, substituted with 0-3 R^{7e};

30 R^{7e}, at each occurrence, is selected from C₁₋₆ alkyl, C₂₋₈ alkenyl, C₂₋₈ alkynyl, (CH₂)_r-C₃₋₆ cycloalkyl, Cl, F, Br, I, CN, NO₂, (CF₂)_r-CF₃, (CH₂)_r-OC₁₋₅ alkyl, OH, SH, C(O)OC₁₋₅ alkyl, (CH₂)_r-SC₁₋₅ alkyl, (CH₂)_r-NR^{7f}R^{7f}, and (CH₂)_r-phenyl;

R^{7f} , at each occurrence, is selected from H, C_{1-5} alkyl, and C_{3-6} cycloalkyl, and phenyl;

- 5 R^{7g} is independently selected from $-C(O)R^{7b}$, $-C(O)OR^{7d}$, $-C(O)NR^{7f}R^{7f}$, and $(CH_2)_r$ phenyl;

- R' , at each occurrence, is selected from H, C_{1-6} alkyl substituted with R^{6e} , C_{2-8} alkenyl, C_{2-8} alkynyl,
10 $(CH_2)_rC_{3-6}$ cycloalkyl, and $(CH_2)_r$ phenyl substituted with R^{6e} ;

R^8 is selected from H, C_{1-4} alkyl, and C_{3-4} cycloalkyl;

- 15 R^9 is selected from H, C_{1-4} alkyl, C_{3-4} cycloalkyl, $-C(O)H$, and $-C(O)-C_{1-4}$ alkyl;

- R^{10} is independently selected from H, and C_{1-4} alkyl substituted with 0-1 R^{10b} , alternatively, two R^{10}
20 form $=O$;

R^{10b} , at each occurrence, is independently selected from $-OH$, $-SH$, $-NR^{10c}R^{10c}$, $-C(O)NR^{10c}R^{10c}$, and $-NHC(O)R^{10c}$;

- 25 R^{10c} is selected from H, C_{1-4} alkyl and C_{3-6} cycloalkyl;

R^{14} , at each occurrence, is independently selected from H and C_{1-4} alkyl;

- 30 alternatively, two $R^{14}s$, along with the carbon atom to which they are attached, join to form a C_{3-6} carbocyclic ring;

R¹⁵, at each occurrence, is independently selected from H, C₁₋₄alkyl, OH, NH₂, -O-C₁₋₄ alkyl, NR^{15a}R^{15a}, C(O)NR^{15a}R^{15a}, NR^{15a}C(O)R^{15b}, NR^{15a}C(O)OR^{15d}, OC(O)NR^{15a}R^{15a}, and (CHR)_rC(O)OR^{15d};

5

alternatively, two R¹⁵s, along with the carbon atom or atoms to which they are attached, join to form a C₃₋₆ carbocyclic ring;

10 R^{15a}, at each occurrence, is independently selected from H, and C₁₋₄ alkyl;

R^{15b}, at each occurrence, is independently selected from C₁₋₄ alkyl, C₃₋₆ alkenyl, and C₃₋₆ alkynyl;

15

R^{15d}, at each occurrence, is independently selected from C₁₋₄ alkyl, C₃₋₆ alkenyl, and C₃₋₆ alkynyl;

R¹⁶ is selected from C₁₋₄ alkyl;

20

l is selected from 1, 2 and 3;

n is selected from 0, 1, 2, and 3;

25 p, at each occurrence, is independently selected from 0, 1, and 2;

q, at each occurrence, is independently selected from 1, 2, 3, and 4;

30

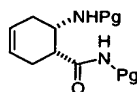
r, at each occurrence, is independently selected from 0, 1, 2, 3, and 4;

s is selected from 0 and 1; and

t, at each occurrence, is independently selected from 2,
3, and 4;

5

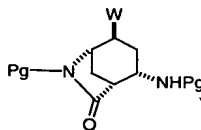
the steps comprising reacting a compound of Formula IV,



(IV)

10

with an electrophile and base to give a compound of
Formula II;



(II)

wherein

15

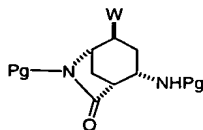
W is selected from H, I, and Br;

Pg, at each occurrence, is independently selected from an
amine protecting group;

20

reacting a compound of Formula II to give the compound of
Formula (Ia).

33. A process for preparing a compound of Formula (II)

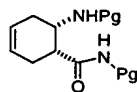


(II)

25

or salt or stereoisomer thereof,

comprising reacting a compound of Formula (IV)



(IV)

with an electrophile and a base,

5 wherein

W is selected from I and Br;

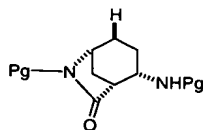
Pg, at each occurrence, is independently selected from an
10 amine protecting group.

34. The process of claim 33 wherein

the electrophile is selected from iodine, bromine, N-
15 bromo-succinimide, and N-iodosuccinimide; and

the base is selected from n-butyl lithium, lithium
diisopropylamide (LDA), sodium hydride, lithium
bis(trimethylsilyl)amide, potassium
20 bis(trimethylsilyl)amide, sodium bis(trimethylsilyl)-
amide, and Li-Al(O-tButyl)₄.

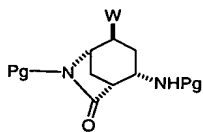
35. A process for preparing a compound of Formula (IIa)



(IIa)

25 or salt or stereoisomer thereof,

comprising reduction of a compound of Formula (II) with a
reducing agent;



(II)

wherein W is selected from I and Br , and

Pg, at each occurrence, is independently selected from an
 5 amine protecting group.

36. The process of claim 35, wherein the reducing agent
 is selected from tris-(trimethylsilyl)silane, zinc metal,
 tributyltin hydride and AIBN.

10